IN THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

YADKIN RIVERKEEPER, INC., AND WATERKEEPER ALLIANCE, INC.,)
Plaintiffs,)
v.)
DUKE ENERGY CAROLINAS, LLC,)
Defendant.))

EXHIBIT 1 TO COMPLAINT

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July 1, 2014

Via Certified Mail - Return Receipt Requested

The Honorable Regina McCarthy, Administrator U.S. Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Mail Code: 1101A Washington, DC 20460

John E. Skvarla, III, Secretary N.C. Department of Environment and Natural Resources 1601 Mail Service Center Raleigh, NC 27699-1601

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Notice of Intent to Sue FWPCA Section 505 - 33 U.S.C. § 1365

RE: 60-Day Notice of Violation by Duke Energy Carolinas, LLC – Buck Steam Station, NPDES Permit # NC0004774

To Whom It May Concern:

The purpose of this letter is to notify the United States Environmental Protection Agency ("EPA"), the North Carolina Department of Environment and Natural Resources ("DENR"), and Duke Energy Carolinas, LLC ("Duke"), of ongoing violations of the Clean Water Act ("CWA") at the Buck Steam Station ("Buck") in Rowan County, North Carolina, owned and operated by Duke. Waterkeeper Alliance, Inc., and the Yadkin Riverkeeper (collectively, the "Conservation")

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Groups") and their members are very concerned about serious, ongoing violations of the CWA at Buck. Duke has caused and continues to cause illegal point source discharges from the coal ash lagoons at Buck directly into the Yadkin River and its tributaries, as well as the nearby groundwater.

Pursuant to 33 U.S.C. § 1365(b), the Conservation Groups hereby give notice of their intent to sue Duke for violations of the CWA unless, within 60 days of your receipt of this letter, Duke enters into a binding agreement to cease and fully and promptly remediate all such violations. The Conservation Groups intend to pursue the claims identified in this letter if DENR has not commenced a civil or criminal action to resolve these same claims, if DENR has not diligently prosecuted these claims, or as otherwise authorized by law.

FACTUAL BACKGROUND

Buck is located on Dukeville Road in Salisbury, Rowan County, North Carolina, on the banks of the Yadkin River. Duke is authorized to discharge wastewater from Buck solely according to the terms of National Pollutant Discharge Elimination System ("NPDES") Permit No. NC0004774 ("Permit"), effective January 1, 2012, and does not have a permit authorizing any stormwater discharges. The Buck site includes three coal ash lagoons, known as the Primary Cell, the Old Primary Cell, and the Secondary Cell. Collectively, these lagoons cover approximately 170 acres and contain 1.5 billion gallons of coal ash and contaminated wastewater. The lagoons are unlined, and the ash is stored in a wet condition. There is at least one natural blue-line stream that runs directly through the Primary Cell, the largest of the coal ash lagoons at Buck. The dikes impounding these lagoons tower 50 to 80 feet above the Yadkin River.

EPA has assigned a hazard-potential rating of "Significant" to each of the three dams that form the Buck coal ash lagoons because structural failure of one or more of the dams would likely cause significant economic loss, environmental damage, and damage to infrastructure. DENR has assigned a hazard-potential rating of "High" to each dam at Buck because significant environmental damage could occur if the dams fail. Duke and DENR have identified multiple structural failings in the dams surrounding the Buck coal ash basins, including pipes and other structures that are broken, cracked, leaking, or "approaching the end of [their] safe performance life." DENR has designated these problems as "serious."

¹ See Stream Map, attached as Ex. 2.

² EPA, Coal Combustion Residues (CCR) – Surface Impoundments with High Hazard Potential Rating (last updated March 2014), http://www.epa.gov/osw/nonhaz/industrial/special/fossil/ccrs-fs/index.htm.

³ DENR, Notice of Deficiency for Buck Steam Station Main Dam at 2 (June 13, 2014), attached as Ex. 3.

⁴ Id.; DENR, Notice of Deficiency for Buck Steam Station Basin I to Basin 2 Dam at 1 (June 13, 2014), attached as Ex. 4.

⁵ DENR, Notice of Deficiency for Buck Steam Station Main Dam at 2 (June 13, 2014); DENR, Notice of Deficiency for Buck Steam Station Basin I to Basin 2 Dam at 2 (June 13, 2014).

The Buck coal ash lagoons contain many substances, including wet-sliced coal ash, ash transport water, coal pile runoff, chemical metal-cleaning wastes, and low-volume waste streams from the Buck operations. These substances contain pollutants such as aluminum, arsenic, boron, chromium, iron, lead, manganese, and sulfate. When the ash comes into contact with water, these pollutants tend to dissolve into the water, increasing the likelihood that contaminants will leach out of the impoundment and into nearby ground and surface waters.

These pollutants cause numerous health problems, which are exacerbated by the combined and synergistic effects that occur when individuals are exposed to multiple different pollutants. Oral exposure to hexavalent chromium, an especially toxic species of chromium, causes cancers of the stomach and mouth, and skin contact may cause dermatitis and ulcerations. Lead is a potent neurotoxicant that is highly damaging to the nervous system, as well as a probable human carcinogen. Health problems associated with exposure to lead include neurotoxicity, developmental delays, hypertension, impaired hearing acuity, impaired hemoglobin synthesis, and male reproductive impairment. Studies of aluminum show that people exposed to high aluminum levels may develop Alzheimer's disease. Iron can render water unusable by imparting a rusty color and a metallic taste and by causing sedimentation and staining. Manganese is known to be toxic to the nervous system, and very high levels may impair brain development in children. Manganese also renders water unusable by discoloring the water, giving it a metallic taste, and causing black staining. Oral exposure to boron leads to testicular degeneration, reduced sperm count, reduced birth weight, and birth defects.

Groundwater monitoring data submitted to North Carolina regulators by Duke Energy indicates that all of the coal ash lagoons at Buck are leaking contaminants into the groundwater around the site. Many people, including families with young children, live in homes that are located adjacent to the coal ash lagoons, some less than 300 feet from a leaking coal ash lagoon. All households in the area surrounding the Buck coal ash lagoons obtain drinking water from wells that withdraw water from the groundwater beneath them. Samples taken from these residential wells have revealed the presence of several contaminants common to coal ash, including lead and hexavalent chromium.

Duke's leaking coal ash lagoons at Buck pose other threats to people and wildlife in the surrounding area. The coal ash lagoons discharge directly into a reservoir of the Yadkin River known as High Rock Lake, as well as its tributaries. High Rock Lake serves as a popular recreational area for fishing, boating, and swimming. Downstream of Duke's toxic wastewater discharges, the towns of Denton and Albemarle withdraw drinking water from the Yadkin River. The coal ash ponds are bordered in part by Alcoa game lands, and DENR has identified at least one animal trail extending from the upstream toe to the downstream toe of the dam. Duke also invites other wildlife to live and feed in and around its coal ash lagoons, including osprey, which nest atop platforms that extend out of the coal ash lagoons themselves.

Although all of the coal-fired units at Buck are now retired, the Conservation Groups are not aware that Duke has submitted a closure plan for the coal ash lagoons at the site to DENR as required by its NPDES permit. As long as Duke continues to store its coal ash in these leaking, unlined lagoons, illegal discharges of toxic pollutants will continue to contaminate the Yadkin River, High Rock Lake and its tributaries, and groundwater, in violation of the CWA.

DENR has filed an action against Duke in the Superior Court for Mecklenburg County for certain violations of North Carolina law and of the Buck Permit. *State of North Carolina v. Duke Energy Carolinas, LLC*, C.A. No. 13-cvs-9352 (the "DENR Complaint"), attached as Ex. 1. However, that action does not cover the following violations, as explained in each of the claims below.

LEGAL BACKGROUND

Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants from a point source to waters of the United States except in compliance with, among other conditions, a National Pollutant Discharge Elimination System ("NPDES") permit issued pursuant to § 402 of the CWA, 33 U.S.C. § 1342. Each violation of the permit – and each discharge that is not authorized by the permit – is a violation of the Clean Water Act.

The CWA defines a "point source" as "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, [or] container . . . from which pollutants are or may be discharged." 33 U.S.C. § 1362(14) (emphasis added). Under this broad definition, the discharge of pollutants from mining pits, slurry ponds, sediment basins, and mining leachate collection systems have been held to be point sources. E.g., U.S. v. Earth Sciences, Inc., 599 F.2d 368, 374 (10th Cir. 1979) ("[W]hether from a fissure in the dirt berm or overflow of a wall, the escape of liquid from the confined system is from a point source."); Consolidation Coal Co. v. Costle, 604 F.2d 239, 249-50 (4th Cir. 1979) (finding regulation of "discharges from coal preparation plant associated areas," which in turn included slurry ponds, drainage ponds, and coal refuse piles, was within CWA definition of point source), rev'd on other grounds, 449 U.S. 64 (1980).

In addition, a "point source need not be the original source of the pollutant; it need only convey the pollutant to 'navigable waters.'" S. Fla. Water Mgmt. Dist. V. Miccosukee Tribe of Indians, 541 U.S. 95, 105 (2004); accord W. Va. Highlands Conservancy, 625 F.3d at 168 (permits are required for discharges from point sources that "merely convey pollutants to navigable waters"). Thus, ditches and channels that convey pollutants but are themselves not the original source constitute point sources. This includes unintentional conveyance of pollutants, for example, through natural-formed ditches, gullies, or fissures. See Sierra Club v. Abston Constr. Co., 620 F.2d 41, 45 (5th Cir. 1980) (discharge from mining pits and spoil piles through naturally formed ditches caused by gravity flow at a coal mining site are point sources); Earth Sciences, 599 F.2d 368 (holding unintentional discharges of pollutants from a mine system designed to catch runoff from gold leaching site during periods of excess melting met the statutory definition of a point source); N.C. Shellfish Growers Ass'n v. Holly Ridge Assocs., LLC, 278 F. Supp. 2d 654, 679 (E.D.N.C. 2003) ("Notwithstanding that it may result from such natural phenomena as rainfall and gravity, the surface run-off of contaminated waters, once channeled or collected, constitutes discharge by a point source."); O'Leary v. Moyer's Landfill, Inc., 523 F. Supp. 642, 655 (E.D. Pa. 1981) (intent of the discharging entity is irrelevant).

DESCRIPTION OF VIOLATIONS

I. Unauthorized Point Source Discharges to Waters of the United States

Duke is violating the CWA by discharging pollutants into navigable surface waters of the United States from unpermitted point sources at Buck. As explained above, any point source discharge that is not authorized by a NPDES permit is a violation of the CWA. 33 U.S.C. § 1311(a). The Buck Permit authorizes the following discharges only: once-through non-contact cooling water through Outfall 001, treated wastewater from the ash basin through Outfall 002, and yard sump overflows through Outfall 002A.

Yet there are additional, unpermitted point source discharges from the coal ash lagoons at Buck into High Rock Lack and its tributaries—navigable waters of the United States—from locations other than these permitted outfalls. Unauthorized pollution discharges are occurring at multiple locations, including the following:

- engineered seep discharges from the toe-drains of the ash basin and ash settling ponds
- non-engineered seeps, including orange-colored discharges flowing from the Secondary lagoon into an unnamed tributary of the Yadkin River;
- non-engineered seep discharges flowing from the west side of the Primary lagoon into an inlet that then flows into the Yadkin River; and
- discharges from an unpermitted pipe located north of the Old Primary and Secondary lagoons.

All of these flows are unpermitted point source discharges that contain pollutants from the coal ash lagoons and flow unpermitted into the Yadkin River or its tributaries. None of these continuing discharges is authorized by Buck's NPDES Permit.

Testing conducted by a certified, independent laboratory reveals that Duke's unauthorized discharges from these point sources contain pollutants such as aluminum, barium, boron, chromium, iron, lead, manganese, and zinc, in violation of the CWA. Moreover, although an exceedance of a water quality standard is not necessary to show a violation of § 301(a) of the CWA, 33 U.S.C. § 1311(a), the testing also revealed these pollutants were detected at levels high enough to exceed federal and state standards, as shown in Table 1

Table 1: Pollutants Found In Unpermitted Seeps				
Pollutant	Standard	Violations at Unpermitted Seeps and Pipe	Highest Documented Exceedance (Percent Above Standard)	
Boron	700 μg/L	1,050 μg/L	50%	
Chromium	10 μg/L	97 μg/L	870%	
Iron	300 μg/L	543 to 326,000 μg/L	108,566%	
Lead	15 μg/L	94 μg/L	526%	
Manganese	50 μg/L	28,100 μg/L	56,100%	

Because these discharges to the navigable waters of the United States are continuous and ongoing, they will continue after the date of this letter and the subsequent filing of a lawsuit. Although DENR's Complaint includes a claim related to unpermitted seeps at Buck, this claim is

limited to the engineered seeps at the site, and does not include or identify discharges from the non-engineered seeps or pipe. DENR Complaint at 17–18, 38. Therefore DENR's Complaint cannot bar a citizen suit related to this claim.

II. <u>Prohibited Discharges of Removed Substances to Waters of North Carolina and the</u> United States

Duke is violating the CWA by failing to comply with an express condition in the Buck Permit barring pollutants in the coal ash lagoons from entering North Carolina waters and navigable waters of the United States.

Under the CWA, "[a]ny permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action." 40 C.F.R. § 122.41(a); 33 U.S.C. §§ 1365 (f)(6),1342(a); Permit No. NC0004774 (the "Buck Permit"), Part II.B.1 ("The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA . . . and is grounds for enforcement action " (emphasis added)); Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 204 F.3d 149, 152 (4th Cir. 2000) (confirming citizens are "authorized to bring suit against any NPDES permit holder who has allegedly violated its permit."). This is true even for permit conditions that are more stringent than federal CWA requirements. See 33 U.S.C. § 1370 (allowing states to adopt and enforce more stringent limitations in CWA permits than the federal government); 33 U.S.C. § 1311(b)(1)(B) (stating that more stringent state limitations in furtherance of the objective of the CWA include "those necessary to meet water quality standards"); Nw. Envtl. Advocates v. City of Portland, 56 F.3d 979, 986 (9th Cir. 1995) ("The plain language of CWA § 505 authorizes citizens to enforce all permit conditions"); Culbertson v. Coats Am., 913 F. Supp. 1572, 1581 (N.D. Ga. 1995) (holding that "[t]he CWA authorizes citizen suits for the enforcement of all conditions of NPDES permits").

Duke has violated and continues to violate the provision of its NPDES permit prohibiting the entrance of pollutants from the coal ash lagoons into North Carolina waters or navigable waters of the United States. Part II.C.6 of the permit requires that

Solids, sludges . . . or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of . . . in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States"

(emphasis added). The ash lagoons receive and treat various waste streams, including coal ash transport water, coal pile runoff, chemical metal cleaning wastes, and stormwater. These waste streams are treated by sedimentation in the ash lagoons, which is why they are also referred to as settling lagoons. The ash settling lagoons are "an integral part of the station's wastewater treatment system," according to a Groundwater Assessment Work Plan prepared for Duke. Pollutants that have been removed in the course of treatment are stored in all three ash lagoons. Part II.C.6 therefore prohibits Duke from allowing these pollutants to enter the waters of North Carolina or the United States. Groundwater is included in the North Carolina pollution control

statute's definition of waters of the state. N.C. Gen. Stat. § 143-212(6). So is the Yadkin River. *Id.* The river is also a navigable water of the United States.

Pollutants, solids, and sludges from Duke's Buck coal ash lagoons have for years been entering State waters and navigable waters. In addition to the surface water discharges described in Section I, pollutants from Duke's coal ash lagoons have been found in groundwater under, at, and around Buck. Data from drinking water wells to the south and southeast of the coal ash lagoons and from nearby monitoring wells⁶ show elevated levels of pollution in the groundwater surrounding the unlined lagoons, including levels that are frequently in excess of North Carolina groundwater standards, as shown in Table 2. Although exceedances of groundwater standards are not necessary to show a violation of the removed substances provision, this evidence indicates that pollutants from Duke's wastewater treatment system are entering the groundwater, in violation of the Buck Permit and, in turn, the CWA.

Table 2: Pollutants Found In Prohibited Discharges				
Pollutant	Standard	Violations at Wells Surrounding Buck	Highest Documented Exceedance (Percent Above Standard)	
Aluminum	50-200 μg/L	75 to 900 μg/L	1700%	
Boron	700 μg/L	1,130 to 1,309 μg/L	87%	
Chromium	10 μg/L	24 μg/L	140%	
Iron	300 μg/L	318 to 45,100 μg/L	14,933%	
Lead	15 μg/L	19 to 58 μg/L	287%	
Manganese	50 μg/L	56 to 1,130 μg/L	2160%	
Sulfate	250 mg/L	320 to 350 mg/L	40%	
Total Dissolved Solids	500 mg/L	561 to 630 mg/L	26%	

The settling lagoons are a wastewater treatment system; their purpose is to treat and remove solids, sludges, and pollutants. Instead, in violation of an express provision of its permit, Duke has been and is allowing the unpermitted and uncontrolled entrance of solids, sludges, and pollutants—including aluminum, boron, chromium, iron, lead, manganese, sulfate, and total dissolved solids—into the waters of the State and navigable waters of the United States. Duke's actions are a straightforward violation of this straightforward provision of the Permit.

Accordingly, Duke's discharges of removed solids, sludges, and pollutants to U.S. and State waters—including the Yadkin River, High Rock Lake, and groundwater of North Carolina—constitute violations of its Permit and thus of the Clean Water Act, and is subject to citizen suit enforcement. Because these permit violations and discharges from the unlined lagoons to the waters of the State and to navigable waters of the United States are continuous and ongoing, they will continue after the date of this letter and the subsequent filing of a lawsuit.

⁶ Duke's own monitoring well data show high levels of contaminants, examples of which are attached as Ex. 5.

DENR has not commenced an action to remedy these violations. DENR's Complaint does not include any claim regarding violations of the Permit's prohibition against the release of removed substances at Buck. Therefore DENR's Complaint cannot bar a citizen suit related to this claim.

III. <u>Unauthorized Discharges Through Close Hydrologic Flow into Waters of the United States</u>

Duke is violating the CWA by discharging pollutants through the groundwater into navigable waters of the United States via close hydrologic connections. As discussed above, the CWA prohibits "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12)(A). "[T]he touchstone for finding a point source is the ability to identify a discrete facility from which pollutants have escaped." Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 987 (E.D. Wash. 1994).

Because there is a direct hydrologic connection between the ash lagoons and the Yadkin River, Duke's discharges from the lagoons via the groundwater to the river are point sources that violate the CWA.

EPA has stated repeatedly that the CWA applies to such hydrologically-connected groundwater discharges. 66 Fed. Reg. 2960, 3015 (Jan. 12, 2001) ("EPA is restating that the Agency interprets the Clean Water Act to apply to discharges of pollutants from a point source via ground water that has a direct hydrologic connection to surface water."). *Accord* 56 Fed. Reg. 64876-01, 64892 (Dec. 12, 1991) ("the Act requires NPDES permits for discharges to groundwater where there is a direct hydrological connection between groundwaters and surface waters."); 55 Fed. Reg. 47990, 47997 (Nov. 16, 1990) (announcing stormwater runoff rules and explaining that discharges to groundwater are covered by the rule where there is a hydrological connection between the groundwater and a nearby surface water body).

In a 1998 site report, EPA stated that "[a] documented ground water hydrological connection between a source and surface water discharge may be viewed as a conduit; or a discernible, confined, and discrete conveyance," *i.e.*, a point source. U.S. EPA, Report on Hydrological Connection Associated with Molycorp Mining Activity, Questa, New Mexico, at 3 (Feb. 13, 1998). As a result, EPA has identified and regulated as point sources impoundments leaching into groundwater that discharge directly to a neighboring river, exactly as with the situation at Buck.

In its response to a comment questioning EPA's jurisdiction to regulate such discharges, EPA stated, "[t]hat a point source may transmit the pollutants to those surface waters through directly connected groundwater does not deprive EPA of jurisdiction over that addition . . . to protect jurisdictional surface waters from discharges through groundwater, not to protect groundwater quality per se." U.S. EPA, Response to Comments on the Proposed National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Concentrated Animal Feeding Operations (CAFOs) in New Mexico (NMG010000) (emphasis added).

In its fact sheet for another NPDES permit, EPA explained, "[i]n most surface waters flow is sustained throughout much of the year by groundwater inflow. As a result, pollutants which may leak from containment structures . . . to the groundwater will typically move toward nearby surface waters where they will be discharged and [a]ffect water quality in the receiving waters." U.S. EPA, NPDES Permit # LA0068420 Statement of Basis. As a result, EPA reiterated its authority to regulate such groundwater discharges "[t]o protect surface water quality from the deleterious effects of these discharges." *Id.* (emphasis added).

Moreover, because the CWA prohibits "any addition of any pollutant to navigable waters from any point source," 33 U.S.C. § 1362 (12) (emphasis added), EPA has exercised its CWA authority to regulate the leaching of contaminants from impoundments to hydrologically-connected groundwater even where the receiving surface water did not exceed applicable surface water quality standards ("WQS") and insufficient information existed to document that direct discharges to those surface waters exceeded the applicable WQS. See U.S. EPA, Report on Hydrological Connection Associated with Molycorp Mining Activity, supra, at 3.

EPA's interpretation of the scope of the CWA is entitled to deference. *Chevron U.S.A. Inc. v. Natural Res. Def. Council*, 467 U.S. 837 (1984); *U.S. v. Mead*, 533 U.S. 218, 226-28 (2001); *accord U.S. v. W.R. Grace & Co.*, 429 F.3d 1224, 1237 (9th Cir. 2005).

In addition to EPA, "[t]he majority of courts have held that groundwaters that are hydrologically connected to surface waters are regulated waters of the United States, and that unpermitted discharges into such groundwaters are prohibited under section 1311." Friends of Santa Fe County v. LAC Minerals, Inc., 892 F. Supp. 1333, 1358 (D.N.M. 1995). N. Cal. River Watch v. City of Healdsburg, 496 F.3d 993 (9th Cir. 2007) (finding CWA coverage based on hydrologic connection), aff'g 2004 U.S. Dist. LEXIS 1008 (N.D. Cal. Jan. 23, 2004), cert. denied, 552 U.S. 1180 (2008); Quivira Mining Co. v. U.S. EPA, 765 F.2d 126, 130 (10th Cir. 1985) (finding CWA coverage where discharges ultimately affected navigable-in-fact streams via underground flows); U.S. Steel Corp. v. Train, 556 F.2d 822, 852 (7th Cir. 1977) (CWA "authorizes EPA to regulate the disposal of pollutants into deep wells, at least when the regulation is undertaken in conjunction with limitations on the permittee's discharges into surface waters."); Greater Yellowstone Coal. v. Larson, 641 F. Supp. 2d 1120, 1138 (D. Idaho 2009) ("there is little dispute that if the ground water is hydrologically connected to surface water, it can be subject to" the CWA); Nw. Envtl. Def. Ctr. v. Grabhorn, Inc., 2009 U.S. Dist. LEXIS 101359, *34 (D. Or. 2009) ("In light of the EPA's regulatory pronouncements, this court concludes that . . . the CWA covers discharges to navigable surface waters via hydrologically connected groundwater."); Hernandez v. Esso Std. Oil Co. (P.R.), 599 F. Supp. 2d 175, 181 (D.P.R. 2009) ("the CWA extends federal jurisdiction over groundwater that is hydrologically connected to surface waters that are themselves waters of the United States"); Coldani v. Hamm, 2007 U.S. Dist. LEXIS 62644, *25 (E.D. Cal. Aug. 14, 2007) (a claim that pollution of groundwater that is hydrologically connected to navigable surface waters falls within the purview of the CWA); N. Cal. Riverwatch v. Mercer Fraser Co., 2005 U.S. Dist. LEXIS 42997, *7 (N.D. Cal. Sept. 1, 2005) ("the regulations of the CWA do encompass the discharge of pollutants from wastewater basins to navigable waters via connecting groundwaters"); Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169, 1180 (D. Idaho 2001) ("the CWA extends federal jurisdiction over groundwater that is hydrologically connected to surface waters that are

themselves waters of the United States"); Williams Pipe Line Co. v. Bayer Corp., 964 F. Supp. 1300, 1319-20 (S.D. Iowa 1997) (where groundwater flows toward surface waters, there is "more than the mere possibility that pollutants discharged into groundwater will enter 'waters of the United States," and discharge of petroleum into this hydrologically-connected groundwater violates the CWA); U.S. v. Banks, 873 F. Supp. 650 (S.D. Fla. 1995) (finding CWA coverage based on hydrologic connection via groundwater); Wash. Wilderness Coal. v. Hecla Mining Co., 870 F. Supp. 983, 990 (E.D. Wash. 1994) ("since the goal of the CWA is to protect the quality of surface waters, any pollutant which enters such waters, whether directly or through groundwater, is subject to regulation" under the CWA); Sierra Club v. Colo. Ref. Co., 838 F. Supp. 1428, 1434 (D. Colo. 1993) ("discharge of any pollutant into 'navigable waters' includes such discharge which reaches 'navigable waters' through groundwater"); McClellan Ecological Seepage Situation v. Weinberger, 707 F. Supp. 1182, 1195-96 (E.D. Cal. 1988) (groundwater that is "naturally connected to surface waters that constitute 'navigable waters'" is covered by CWA)), vacated on other grounds, 47 F.3d 325 (9th Cir. 1995).

The reasoning behind these decisions is straightforward:

Congress has explicitly stated that the objective of the CWA "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Therefore, it would hardly make sense for the CWA to encompass a polluter who discharges pollutants via a pipe running from the factory directly to the riverbank, but not a polluter who dumps the same pollutants into a man-made settling basin some distance short of the river and then allows the pollutants to seep into the river via the groundwater.

N. Cal. Riverwatch, 2005 U.S. Dist. LEXIS 42997 at *7–8 (internal citation omitted) (emphasis added). That is precisely the situation at Buck, and accordingly the CWA applies to Duke's unpermitted discharges from the settling lagoons that discharge contaminated groundwater into the Yadkin River.

Because these hydrologically connected discharges from the unlined lagoons to navigable waters of the United States are continuous and ongoing, they will continue after the date of this letter and the subsequent filing of a lawsuit.

IV. Failure to Comply with Dam Safety Requirements

Duke is violating the CWA by failing to comply with a provision in the Buck Permit requiring Duke to meet dam safety requirements. As explained above in Section II, failure to comply with any NPDES permit condition is a violation of the CWA and grounds for a citizen suit. 40 C.F.R. § 122.41(a); 33 U.S.C. §§ 1365 (f)(6),1342(a).

The Buck Permit requires that "[t]he facility shall meet the dam design and dam safety requirements per 15A NCAC 2K." Buck Permit Part I.A.19. Yet the dams at Buck fail to meet the following dam safety requirements under 15A N.C. Admin. Code 02K, in violation of the Permit and CWA:

Section .0206(c): "Protection shall be provided to prohibit unsafe seepage along conduits through the dam, abutments, and foundation." As set out above in Section I, there is unsafe seepage at numerous places throughout the dam structures at Buck. These violations are continuous at each of the seep discharge locations described in Section I.

Section .0206(f)(1): "Pipe conduits shall be designed to support the total external loads in addition to the total internal hydraulic pressure without leakage." In violation of this prohibition against leaking pipe conduits, inspections of the spillways for the dams at Buck have revealed cracks, infiltration stains, and a broken pipe section at the Basin 1 (the Primary lagoon) to Basin 2 (the Old Primary lagoon) Dam, as well as numerous leaks, infiltration drippers, and weeping locations at the Main Dam.⁷

Section .0206(f)(2)(A): "All conduits are to be designed and constructed to remain watertight under maximum anticipated hydraulic pressure and maximum probable joint opening, including the effects of joint rotation and extensibility." As set out in the preceding paragraph, the conduits for the dams at Buck have failed to remain watertight at numerous locations in the Basin 1 to Basin 2 Dam and the Main Dam.

Section .0206(f)(2)(B): "Provisions for safe movement of the barrel are to be provided at each joint in the barrel and at the junction of the barrel and riser or inlet. Cracks are to be articulated if constructed on a yielding foundation." The corrugated metal pipe barrel at the Main Dam has numerous failings, including rusted walls and leaks between joints, in violation of this section.

Section .0207(a): "All dams shall be designed and constructed to prevent the development of instability due to excessive seepage forces, uplift forces, or loss of materials in the embankment, abutments, spillway areas, or foundation." As explained above in this Section and Section I, there is evidence that the dams at Buck are seeping at multiple locations, which could give rise to instability in the Buck dams, in violation of this provision. In addition, the portion of the dike extending from the northeast corner of the Secondary lagoon has been neglected and is significantly overgrown with trees, the root systems of which could disturb the integrity of the dike. Other areas have poor vegetation cover, which could lead to erosion.

Section .0208: "Design and construction of dams to assure structural stability shall be consistent with modern engineering practice." As set out above, the Buck dams are not designed or constructed to assure structural stability and their design and construction is not consistent with modern engineering practice.

Section .0212: "All elements of the dam and reservoir shall conform to good engineering practice." The defects and problems at the Buck dams, which violate each of the provisions set out above, do not conform to good engineering practice.

⁷ DENR, Notice of Deficiency for Buck Steam Station Basin I to Basin 2 Dam, at 1 (June 13, 2014); DENR, Notice of Deficiency for Buck Steam Station Main Dam at 2 (June 13, 2014).
⁸ DENR, Notice of Deficiency for Buck Steam Station Main Dam at 2 (June 13, 2014).

Because these CWA violations of the dam safety requirements in the Buck Permit are continuous and ongoing, they will continue after the date of this letter and the subsequent filing of a lawsuit.

DENR has not commenced an action to remedy these violations. DENR's Complaint does not include any claim regarding these violations of the dam safety provisions of the Permit. Therefore DENR's Complaint cannot bar a citizen suit related to this claim.

PERSONS RESPONSIBLE FOR VIOLATIONS

Buck is owned and operated by Duke. Duke is an LLC with its principal place of business in North Carolina. Duke is responsible for all violations at Buck.

PERSON GIVING NOTICE

The Conservation Groups are § 501(c)(3) non-profit public interest organizations with operations and members in North Carolina, including the Yadkin River watershed. The Yadkin Riverkeeper's mission is to respect, protect, and improve the Yadkin – Pee Dee River Basin through education, advocacy, and action. To carry out this mission, Yadkin Riverkeeper provides programs and activities for its members, including river clean-ups and initiatives to reduce stormwater runoff from construction sites. Yadkin Riverkeeper brings legal action, when necessary, to enforce state and federal environmental laws on issues that affect the Yadkin Basin. Waterkeeper Alliance, whose membership includes Yadkin Riverkeeper, is a global movement of on-the-water advocates who patrol and protect over 100,000 miles of rivers, streams, and coastlines in the United States and throughout the world, including the Yadkin River.

The Conservation Groups and their members have been harmed by Duke's unpermitted discharges and unlawful activities. They recreate and fish on the Yadkin River, High Rock Lake, and its tributaries in the vicinity of and downstream from the Buck coal ash lagoons. They fear contamination of drinking water, wildlife, and river water by discharges from Duke's coal ash lagoons that contain numerous toxic pollutants. Duke's discharges of contaminants from the Buck ash lagoons are reducing the use and enjoyment of the area by Conservation Groups and their members.

The names, addresses, and phone numbers of the persons giving notice are:

Donna Lisenby Waterkeeper Alliance, Inc. 154 Silverstone Farms Road Vilas, NC 28692 704-277-6055 Dean Naujoks Yadkin Riverkeeper, Inc. 308 Patterson Ave. Winston-Salem, NC 27101 336-722-4949

The Conservation Groups believe that a negotiated settlement of these violations, codified through a court-approved consent decree, would be preferable to protracted litigation. However, if we are unable to reach an enforceable settlement agreement, the Conservation Groups are prepared to file suit in the United States District Court for the Middle District of North Carolina pursuant to § 505(a) of the CWA, 33 U.S.C. § 1365(a)(1), after 60 days from the date of this letter. This lawsuit will seek injunctive relief, appropriate monetary penalties, fees and costs of litigation, and such other relief as the Court deems appropriate.

If you have any questions concerning this letter or the described violations, or if you believe this notice is incorrect in any respect, please contact the undersigned counsel, the Southern Environmental Law Center, at (919) 967-1450 (tel.), (919) 929-9421 (fax). During the notice period, we are available to discuss this matter with you, but suggest if you desire to institute negotiations in lieu of a civil action that you do so immediately as we do not intend to delay prosecution of this suit once the notice period has expired. Please be advised that the failure to remedy any of the violations set forth in this letter can result in a court order enjoining further violations and imposing civil penalties of \$37,500 per violation, per day for each violation of the Clean Water Act. In addition, upon the successful prosecution of this suit, the Conservation Groups intend to seek compensation for attorneys' fees and the costs of litigation under the citizen suit provisions of the Clean Water Act, 33 U.S.C. § 1365.

Thank you for your prompt attention to this matter.

Sincerely.

 $Z \setminus \alpha \setminus A$

isuttles@selcnc.org

Myra D. Blake

mblake@selcnc.org

Enclosures

cc (w/encl.)

Via certified mail – return receipt requested: Heather McTeer Toney Regional Administrator, U.S. EPA, Region 4 Roy Cooper, North Carolina Attorney General Via e-mail: Mark Nuhfer, U.S. EPA, Region 4 Karrie-Jo Shell, U.S. EPA, Region 4 Gina Fonzi, U.S. EPA, Region 4 Matthew Hicks, U.S. EPA, Region 4

STATE OF NORTH CAROLINA MECKLENBURG COUNTY	IN THE GENERAL COURT OF JUSTICE SUPERIOR COURT DIVISION 13 CVS
STATE OF NORTH CAROLINA ex rel. NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES,))))
Plaintiff,)
v.) COMPLAINT) AND MOTION FOR
DUKE ENERGY CAROLINAS, LLC,) INJUNCTIVE RELIEF RULE 65 N.C.R.C.P
Defendant.)

The Plaintiff State of North Carolina in accordance with Article 21 of Chapter 143 of the North Carolina General Statutes, and N.C. Gen. Stat. § 1A-1, Rule 65, complaining of the Defendant alleges and says:

PARTIES

- 1. Plaintiff is the sovereign State of North Carolina. This action is being brought upon the relation of the North Carolina Department of Environment and Natural Resources ("DENR") and its Division of Water Resources ("DWR" or division"), an agency of the State established pursuant to the provisions of N.C. Gen. Stat. § 143B-279.1 *et seq.*, and vested with the statutory authority regarding protection of the environment and enforcement of environmental laws pursuant to N.C. Gen. Stat. § 143-211 *et seq.*
- 2. Defendant, Duke Energy Carolinas, LLC, is a corporation organized and existing under the laws of the State of North Carolina. Defendant's principal place of business is located

EXHIBIT 1

DENR's Division of Water Quality and Division of Water Resources have been combined and are currently operating under the name of the Division of Water Resources. All actions taken by the DWQ are considered to have been taken by the DWR.

at 526 South Church Street, Charlotte, North Carolina 28202-1904. Defendant's Registered Agent is CT Corporation System, 150 Fayetteville Street, Box 1011, Raleigh, North Carolina 27601.

- 3. Defendant owns the following six Facilities ("6 Facilities"):
 - (1) Cliffside Steam Station in Rutherford County;
 - (2) **Buck Steam Station** in Rowan County;
 - (3) Allen Steam Station in Gaston County;
 - (4) Belews Creek Steam Station in Stokes County;
 - (5) Dan River Combined Cycle Station in Rockingham County; and
 - (6) *Marshall Steam Station* in Catawba County.
- 4. Defendant was doing business in all of the counties set forth in paragraph 3 above, at each of the 6 Facilities, at the time the violations or threatened violations were committed that gave rise to this action.

JURISDICTION AND VENUE

- 5. The Superior Court has jurisdiction of this action for injunctive relief for existing or threatened violations of various laws and rules and regulations governing the protection of the State's water resources pursuant to N.C. Gen. Stat. §§ 7A-245 and 143-215.6C, and for such other relief as the Court shall deem proper.
- 6. Mecklenburg County is a proper venue for this action because Defendant's principal place of business is located in Mecklenburg County.

GENERAL ALLEGATIONS

Applicable Laws and Regulations

- Pursuant to N.C. Gen. Stat. § 143-215.3(a)(1), the Environmental Management Commission ("EMC" or the "Commission") has the power "[t]o make rules implementing Articles 21, 21A, 21B or 38 of . . . Chapter" 143 of the North Carolina General Statutes. These statutes, and the rules adopted under them, are designed to further the public policy of the State, as declared in N.C. Gen. Stat. § 143-211, "to provide for the conservation of its water and air resources . . . [and], within the context of Article [21] and Articles 21A and 21B of this Chapter [143], to achieve and to maintain for the citizens of the State a total environment of superior quality."
- 8. N.C. Gen. Stat. § 143-211 further provides that "[s]tandards of water and air purity shall be designed to protect human health, to prevent injury to plant and animal life, to prevent damage to public and private property, to insure the continued enjoyment of the natural attractions of the State, to encourage the expansion of employment opportunities, to provide a permanent foundation for healthy industrial development and to secure for the people of North Carolina, now and in the future, the beneficial uses of these great natural resources."
- 9. The Commission has the power to issue permits with conditions attached which the Commission believes are necessary to achieve the purposes of Article 21 of Chapter 143 of the General Statutes. N.C. Gen. Stat. § 143-215.1(b)(4).
- 10. Pursuant to its authority in N.C. Gen. Stat. § 143-215.3(a)(4) to delegate such of its powers as it deems necessary, the Commission has delegated the authority to issue permits, and particularly discharge permits, to the Director of the Division of Water Resources ("Director"). See Title 15A of the North Carolina Administrative Code ("NCAC"), rule

- 2H.0112². A copy of this rule is attached hereto as Plaintiff's Exhibit No. 1, and is incorporated herein by reference.
- 11. N.C. Gen. Stat. § 143-215.1 requires a permit before any person can "make any outlets into the waters of the State" or "cause or permit any waste, directly or indirectly, to be discharged to or in any manner intermixed with the waters of the State in violation of the water quality standards applicable to the assigned classifications ... unless allowed as a condition of any permit, special order or other appropriate instrument issued or entered into by the Commission under the provisions of this Article [Article 21 of Chapter 143 of the General Statutes]." N.C. Gen. Stat. §§ 143-215.1(a) (1) and (6).
- 12. The Commission's rules in 15A NCAC Subchapter 2L (hereinafter "2L Rules") "establish a series of classifications and water quality standards applicable to the groundwaters of the State." 15A NCAC 2L.0101(a). A copy of the 2L Rules is attached hereto as Plaintiff's Exhibit No. 2 and is incorporated herein by reference.
- 13. "Groundwaters" are defined in the 2L Rules as "those waters occurring in the subsurface under saturated conditions." 15A NCAC 2L.0102(11).
- 14. The 2L Rules "are applicable to all activities or actions, intentional or accidental, which contribute to the degradation of groundwater quality, regardless of any permit issued by a governmental agency authorizing such action or activity except an innocent landowner who is a bona fide purchaser of property which contains a source of groundwater contamination, who purchased such property without knowledge or a reasonable basis for knowing that groundwater contamination had occurred, or a person whose interest or ownership in the property is based or

² 15A NCAC 2H.0112. This Rule actually delegates the authority to issue discharge permits to the Director of the former DWQ. However, this authority has now been delegated to the Director of the DWR.

derived from a security interest in the property, shall not be considered a responsible party." 15A NCAC 2L.0101(b).

- 15. The policy section of the 2L Rules provides that the 2L Rules "are intended to maintain and preserve the quality of the groundwaters, prevent and abate pollution and contamination of the waters of the state, protect public health, and permit management of the groundwaters for their best usage by the citizens of North Carolina." 15A NCAC 2L.0103(a).
- 16. "Contaminant" is defined in the 2L Rules as "any substance occurring in groundwater in concentrations which exceed the groundwater quality standards specified in Rule .0202 of the Subchapter." 15A NCAC 2L.0102(4).
- 17. "Natural Conditions" are defined in the 2L Rules as "the physical, biological, chemical and radiological conditions which occur naturally." 15A NCAC 2L.0102(16).
- 18. The policy section of the 2L Rules provides further that, "[i]t is the policy of the Commission that the best usage of the groundwaters of the state is as a source of drinking water. These groundwaters generally are a potable source of drinking water without the necessity of significant treatment. It is the intent of these Rules to protect the overall high quality of North Carolina's groundwaters to the level established by the standards and to enhance and restore the quality of degraded groundwaters where feasible and necessary to protect human health and the environment, or to ensure their suitability as a future source of drinking water." 15A NCAC 2L.0103(a).
- 19. The policy section of the 2L Rules provides further that, "[n]o person shall conduct or cause to be conducted, any activity which causes the concentration of any substance to exceed that specified in Rule .0202 of this Subchapter, except as authorized by the rules of this Subchapter." 15A NCAC 2L.0103(d).

- 20. The groundwater "Standards" are specified in 15A NCAC 2L.0202. See 15A NCAC 2L.0102(23). Some groundwater standards and their concentrations are specifically listed in 15A NCAC 2L.0202(g) and (h). If a substance is not specifically listed and if it is naturally occurring, the standard is the naturally occurring concentration as determined by the Director. 15A NCAC 2L.0202(c). If a substance is listed, if it is naturally occurring and the substance exceeds the established standard, the standard shall be the naturally occurring concentration as determined by the Director. 15A NCAC 2L.0202(b)(3). If a substance is not specifically listed and it is not naturally occurring, the substance cannot be permitted in concentrations at or above the practical quantitation limit in Class GA or Class GSA waters, except that the Director may establish interim maximum allowable concentrations ("IMAC") pursuant to 15A NCAC 2L.0202(c). These are listed in Appendix #1 of 15A NCAC 2L. The IMACs are the established standard until adopted by rule. See the last page of Plaintiff's Exhibit No. 2.
- 21. The DWQ Director established the IMAC for Antimony on August 1, 2010 and for Thallium on October 1, 2010, substances for which standards had not been established under the 2L Rules. A copy of the Public Notice establishing the IMACs and a copy of the Approved IMACs are attached hereto as Plaintiff's Exhibit Nos. 3 and 4, respectively, and both exhibits are incorporated herein by reference. The interim maximum allowable concentration for Thallium is 0.2 micrograms per liter ("μg/L") established pursuant to 15A NCAC 2L.0202(c). The interim maximum allowable concentration for Antimony is 1 μg/L established pursuant to 15A NCAC 2L.0202(c). See the last page of Plaintiff's Exhibit No. 2.

- 22. "It is the intention of the Commission to protect all groundwaters to a level of quality at least as high as that required under the standards established in Rule .0202 of this Subchapter." 15A NCAC 2L.0103(b).
- 23. A "Compliance Boundary" is defined in the 2L Rules as "a boundary around a disposal system at and beyond which groundwater quality standards may not be exceeded and only applies to facilities which have received an individual permit issued under the authority of [N.C. Gen. Stat. §] 143-215.1 or [N.C. Gen. Stat. §]130A." 15A NCAC 2L.0102(3).
- 24. Pursuant to 15A NCAC 2L.0107(a), "[f]or disposal systems individually permitted prior to December 30, 1983, the compliance boundary is established at a horizontal distance of 500 feet from the waste boundary or at the property boundary, whichever is closer to the source."
- 25. The "Waste Boundary" is defined in the 2L Rules as "the perimeter of the permitted waste disposal area." 15A NCAC 2L.0102(26).
- 26. A "Corrective Action Plan" is defined in the 2L Rules as "a plan for eliminating sources of groundwater contamination or for achieving groundwater quality restoration or both." 15A NCAC 2L.0102(5). A site assessment pursuant to a corrective action plan should include the source and cause of contamination, any imminent hazards to public health and safety, all receptors and significant exposure pathways, the horizontal and vertical extent of the contamination, as well as all geological and hydrogeological features influencing the movement of the contamination. 15A NCAC 2L.0106 (g).
 - 27. Pursuant to N.C. Gen. Stat. § 143-215.6C, "[w]henever the Department has reasonable cause to believe that any person has violated or is threatening to violate any of the provisions of this Part [Part 1, Article 21, of the General Statutes], any of the terms of any permit

issued pursuant to this Part, or a rule implementing this Part, . . ." the Department is authorized to "request the Attorney General to institute a civil action in the name of the State upon the relation of the Department for injunctive relief to restrain the violation or threatened violation."

- 28. The statute further provides that "[u]pon a determination by the court that the alleged violation of the provisions of this Part or the regulations of the Commission has occurred or is threatened, the court shall grant the relief necessary to prevent or abate the violation or threatened violation." N.C. Gen. Stat. § 143-215.6C.
- 29. Additionally, the section provides that "[n]either the institution of the action nor any of the proceedings thereon shall relieve any party to such proceedings from any penalty prescribed for the violation of this Part." N.C. Gen. Stat. § 143-215.6C.
- 30. Defendant is a person consistent with N.C. Gen. Stat. § 143-212(4) and pursuant to N.C. Gen. Stat. § 143-215.6C.

Factual and Legal Allegations

All 6 Facilities

- 31. Defendant implemented a voluntary groundwater monitoring program at most of the 6 Facilities in 2006.
- 32. In 2009, the DWQ required Defendant to place monitoring wells at the compliance boundaries of all of the Coal Ash Ponds at all 6 Facilities.
- 33. The DWQ approved Defendant's proposed locations of compliance boundary wells and monitoring wells at each of the 6 Facilities on the following dates:
 - (1) *Cliffside Steam Station* October 20, 2010;
 - (2) Buck Steam Station September 2, 2010;
 - (3) Allen Steam Station September 2, 2010;

- (4) Belews Creek Steam Station October 19, 2010;
- (5) **Dan River Combined Cycle Station** October 19, 2010; and
- (6) *Marshall Steam Station* September 2, 2010.
- 34. Defendant completed construction of the compliance monitoring wells at the compliance boundaries of the Coal Ash Ponds at each of the 6 Facilities on the following dates:
 - (1) *Cliffside Steam Station* April 2011;
 - (2) **Buck Steam Station** December 2010;
 - (3) Allen Steam Station December 2010;
 - (4) Belews Creek Steam Station December 2010;
 - (5) Dan River Combined Cycle Station December 2010; and
 - (6) *Marshall Steam Station* August 2010.
 - 35. Each of the 6 Facilities have a specific set of parameters being monitored:
 - (1) Cliffside Steam Station Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Chloride, Copper, Iron, Lead, Manganese, Mercury, Nickel, Nitrate, pH, Selenium, Sulfate, Thallium, Total Dissolved Solids, Water Level, and Zinc;
 - (2) **Buck Steam Station** Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Chloride, Copper, Iron, Lead, Manganese, Mercury, Nickel, Nitrate, pH, Selenium, Sulfate, Thallium, Total Dissolved Solids, Water Level, and Zinc;
 - (3) Allen Steam Station Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Chloride, Copper, Iron, Lead, Manganese, Mercury, Nickel, Nitrate, pH, Selenium, Sulfate, Thallium, Total Dissolved Solids, Water Level, and Zinc;
 - (4) *Belews Creek Steam Station* Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Chloride, Copper, Iron, Lead, Manganese, Mercury, Nickel, Nitrate, pH, Selenium, Sulfate, Thallium, Total Dissolved Solids, Water Level, and Zinc;
 - (5) Dan River Combined Cycle Station Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Chloride, Copper, Iron, Lead,

- Manganese, Mercury, Nickel, Nitrate, pH, Selenium, Sulfate, Thallium, Total Dissolved Solids, Water Level, and Zinc; and
- (6) *Marshall Steam Station* Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Chloride, Copper, Iron, Lead, Manganese, Mercury, Nickel, Nitrate, pH, Selenium, Sulfate, Thallium, Total Dissolved Solids, Water Level, and Zinc.
- 36. In 2010 and 2011, Defendant began submitting groundwater monitoring data to the DWQ from the 6 Facilities.
- 37. On June 17, 2011, the DWQ adopted a Policy for Compliance Evaluation of Long-Term Permitted Facilities with No Prior Groundwater Monitoring Requirements (hereinafter the "Policy for Compliance Evaluation"). A copy of the Policy for Compliance Evaluation is attached hereto as Plaintiff's Exhibit No. 5 and is incorporated herein by reference.
- 38. The Policy for Compliance Evaluation establishes an approach to evaluate groundwater compliance at long-term permitted facilities. Specifically, the Policy for Compliance Evaluation requires staff and responsible parties to consider multiple factors before determining if groundwater concentrations in samples taken at the permitted facility are a violation of the groundwater standards, or if the concentration is naturally occurring. Such factors considered are well design, sample integrity, analytical methods, statistical testing, etc.
- 39. All 6 Facilities are subject to the Policy for Compliance Evaluation and Plaintiff has been working with the Defendant to move through the evaluative process as described in the policy.
- 40. Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the 6 Facilities. The 6 Facilities began submitting data in 2010, and Plaintiff's Aquifer Protection staff prepared 6 charts of the Ash Pond Exceedances from 2010 to July 16, 2013. The 6 charts are labeled by National Pollutant Discharge

Elimination System (NPDES) Permit number and facility name. Each chart is attached hereto and labeled individually as Plaintiff's Exhibit: No. 6 (Cliffside Steam Station Ash Pond Exceedances Chart); No. 7 (Buck Steam Station Ash Pond Exceedances Chart); No. 8 (Allen Steam Station Ash Pond Exceedances Chart); No. 9 (Belews Creek Steam Station Ash Pond Exceedances Chart); No. 10 (Dan River Combined Cycle Station Steam Station Ash Pond Exceedances Chart); and No. 11 (Marshall Steam Station Ash Pond Exceedances Chart); respectively, and are incorporated herein by reference.

41. Each of the 6 charts contains the following information: the well number, the parameter sampled, the date of the sample, the 2L Groundwater Standard, the sampling result and the unit of measurement.

Cliffside Steam Station

- 42. On March 3, 1976, pursuant to N.C. Gen. Stat. § 143-215.1, other lawful statutes and regulations issued by the Commission, and the Federal Water Pollution Control Act, as amended ("Clean Water Act" or "CWA"), 33 U.S.C. §§ 1251 *et seq.*, the DWQ issued NPDES Permit No. NC0005088, to Defendant or Defendant's predecessor for the Cliffside Steam Station ("Cliffside Steam Station NPDES Permit"), located on NCSR 1002, south of Cliffside, in Rutherford County, North Carolina.
- 43. The Cliffside Steam Station NPDES Permit has been renewed subsequently. The current NPDES Permit was re-issued on February 20, 2012, with an effective date of March 1, 2011, and with an expiration date of July 31, 2015. A copy of the current Cliffside Steam Station NPDES Permit No. NC0005088 is attached hereto as Plaintiff's Exhibit No. 12, and is incorporated herein by reference.

- 44. The Cliffside Steam Station NPDES Permit authorizes the continued discharge of treated wastewater to receiving waters designated as Broad River (Class C waters), in the Broad River Basin, in accordance with the effluent limitations, monitoring requirements and other conditions set forth in the Cliffside Steam Station NPDES Permit.
- 45. The Cliffside Steam Station NPDES Permit authorizes the continued discharge of treated wastewater through Outfall 002 from the Ash Settling Basin. The Ash Settling Basin contains low volume wastes, coal pile runoff, metal cleaning wastes, treated domestic wastewater, chemical metal cleaning wastes, water treatment system wastewaters, ash transport water, landfill leachate (landfill contains fly and bottom ash, and gypsum from the Flue Gas Desulfurization ("FGD") system), cooling towers blow down, and runoff from the limestone stacking area and the gypsum stacking area.
- 46. In addition, the Cliffside Steam Station NPDES Permit authorizes the continued discharge of emergency yard drainage basin overflow through Outfall 002A.
- 47. Further, the Cliffside Steam Station NPDES Permit authorizes the facility to discharge metal cleaning waste, coal pile runoff, ash transport water, domestic wastewater, landfill leachate, cooling tower blowdown, limestone and gypsum stacking area runoff, and low volume wastes from Internal Outfall 004 -- FGD Wastewater Treatment System into the Ash Settling Basin.
- 48. The effluent limitations and monitoring requirements in the Cliffside Steam Station NPDES Permit require sampling for the following parameters from the ash settling pond discharge from Outfall 002: Flow, Oil and Grease, Total Suspended Solids, Total Copper, Total Iron, Total Arsenic, Total Selenium, Chronic Toxicity, Total Nitrogen, Total Phosphorus, pH,

Total Cadmium, Total Chromium, Total Mercury, Total Nickel, Total Silver, Total Zinc, and Temperature.

- 49. The Cliffside Steam Station NPDES Permit prohibits the discharge of floating solids or visible foam other than in trace amounts.
- 50. The effluent limitations and monitoring requirements in the Cliffside Steam Station NPDES Permit require sampling for the following parameters from emergency yard drainage overflow from Outfall 002A: Flow, Oil and Grease, Total Suspended Solids, pH, Total Copper and Total Iron.
- 51. The effluent limitations and monitoring requirements in the Cliffside Steam Station NPDES Permit require sampling for the following parameters from the internal discharge from Outfall 004 -- FGD Wastewater Treatment System into the Ash Settling Basin: Total Suspended Solids, Total Arsenic, Total Cadmium, Total Chromium, Chloride, Total Mercury, Total Nickel, Total Selenium, Total Silver and Total Zinc.

Unpermitted Seeps at the Cliffside Steam Station

- 52. As mentioned above, the Defendant's Cliffside Steam Station has three permitted outfalls (two external outfalls (002) and (002A) which discharge directly into the Broad River and one internal outfall (004)) which are included in the Cliffside Steam Station NPDES Permit.
- 53. Defendant's Cliffside Steam Station NPDES Permit does not authorize the Defendant to make any outlet or discharge any wastewater or stormwater other than those included in the Cliffside Steam Station NPDES Permit.
- 54. Seeps identified at Defendant's Cliffside Steam Station, include engineered discharges from the toe-drains of Ash Settling Basin, which are different locations from the outfalls described in the Cliffside Steam Station NPDES Permit.

55. A seep or discharge from the Ash Settling Basin or any other part of the Cliffside Steam Station that is not included in the Cliffside Steam Station NPDES Permit is an unpermitted discharge in violation of N.C. Gen. Stat. § 143-215.1(a)(1) and (a)(6).

Exceedances of the 2L Groundwater Standards at the Cliffside Steam Station

- 56. The Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the Cliffside Steam Station from April 2011 through July 16, 2013, and prepared a chart of the Ash Pond Exceedances which are listed in the Cliffside Steam Station Ash Pond Exceedances Chart. *See* Plaintiff's Exhibit No. 6.
- 57. The Cliffside Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Iron (300 μg/L) in MW-20D, MW-20DR, MW-22DR, MW-23D, MW-23DR, MW-24DR and MW-25DR during seven sampling events from April 2011 through April 2013, with concentrations ranging from 330 μg/L to 9,890 μg/L.
- 58. The Cliffside Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 μ g/L) in MW-20D, MW-20DR, MW-21D, MW-22DR, MW-23DR, MW-24DR and MW-25DR during seven sampling events from April 2011 through April 2013, with concentrations ranging from 51 μ g/L to 750 μ g/L.
- 59. The Cliffside Steam Station Ash Pond Exceedances Chart also shows an exceedance from the 2L Groundwater Standard for Chromium (10 μ g/L) in MW-23D and MW-25DR during one sampling event on April 2011, with concentrations of 14 μ g/L and 45 μ g/L, respectively.
- 60. The Cliffside Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for pH (6.5-8.5) in MW-25DR during three

sampling events from April 2011 through December 2011, with concentrations ranging from 8.7 to 9.5.

- 61. The Cliffside Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for pH (6.5-8.5) in MW-21D, MW-22DR and MW-24D during seven sampling events from April 2011 through April 2013, with concentrations ranging from 4.7 to 6.4.
- 62. The Cliffside Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for Total Dissolved Solids (500 milligrams per liter ("mg/L")) in MW-23D during seven sampling events from April 2011 through April 2013, with concentrations ranging from 590 mg/L to 820 mg/L.
- 63. The Cliffside Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for Total Sulfate (250 mg/L) in MW-23D during six sampling events from April 2011 through December 2012, with concentrations ranging from 280 mg/L to 420 mg/L.
- 64. The DWR staff is working with the Defendant to determine if these exceedances are naturally occurring or if corrective action will be required.

Buck Steam Station

- 65. On March 31, 1976, pursuant to N.C. Gen. Stat. § 143-215.1, other lawful statutes and regulations issued by the Commission, and the Clean Water Act, the DWQ issued NPDES Permit No. NC0004774 to Defendant or Defendant's predecessor for the Buck Steam Station ("Buck Steam Station NPDES Permit"), located in Rowan County, North Carolina.
- 66. The Buck Steam Station NPDES Permit has been renewed subsequently. The current NPDES Permit was re-issued on December 2, 2011, with an effective date of January 1,

- 2012, and with an expiration date of August 31, 2016. A copy of the current Buck Steam Station NPDES Permit No. NC0004774 is attached hereto as Plaintiff's Exhibit No. 13, and is incorporated herein by reference.
- 67. The Buck Steam Station NPDES Permit authorizes the continued discharge of treated wastewater to receiving waters designated as the Yadkin River (Class WS-IV & B waters) in subbasin 03-07-06 of the Yadkin-Pee Dee River Basin in accordance with the effluent limitations, monitoring requirements and other conditions set forth therein.
- 68. The Buck Steam Station NPDES Permit authorizes the continued discharge of once-through non-contact cooling water through Outfall 001.
- 69. In addition, the Buck Steam Station NPDES Permit authorizes the continued discharge of treated wastewater from the Ash Basin through Outfall 002.
- 70. Further, the Buck Steam Station NPDES Permit authorizes the continued discharge of yard sump overflows through Outfall 002A.
- 71. Outfalls 002 and 002A consist of coal pile runoff, ash transport water, metal cleaning wastes, treated domestic wastewater, remediated groundwater, low volume wastes, blowdown from wet cooling towers for combined cycle unit, and boiler blowdown.
- 72. The effluent limitations and monitoring requirements in the Buck Steam Station NPDES Permit for the discharge from Outfall 001 requires sampling for the following parameters: Flow and Temperature from June to September and October to May.
- 73. The Buck Steam Station NPDES Permit prohibits chlorination of the once-through cooling water.
- 74. The Buck Steam Station NPDES Permit includes special low-flow condition when the High Rock Lake drawdown is ten feet or greater. In that instance, the Buck Steam

Station can use no more than two-thirds of the stream flow for condenser cooling and Buck Steam Station must ensure that minimum unheated daily average stream flow does not fall below the one-third of the 7-day 10-year low flow (7Q10).

- 75. The effluent limitations and monitoring requirements in the Buck Steam Station NPDES Permit for Outfall 002 require sampling for the following parameters: Flow, Oil and Grease, Total Suspended Solids, Total Copper, Total Iron, Total Arsenic, Total Selenium, Chronic Toxicity, Total Nitrogen, Total Phosphorus, pH, and Total Mercury. The metal cleaning waste, coal pile runoff, remediated groundwater, flows from floor drains, laboratory flows, ash transport water, domestic wastewater and low volume wastes must be discharged to the Ash Settling Pond.
- 76. The effluent limitations and monitoring requirements in the Buck Steam Station NPDES Permit for Outfall 002A require sampling for the following parameters: Flow, pH, Total Suspended Solids, Fecal Coliform and Iron.
- 77. The Buck Steam Station NPDES Permit prohibits the discharge of floating solids or visible foam other than in trace amounts from any of its outfalls.

Unpermitted Seeps at the Buck Steam Station

- 78. As mentioned above, the Defendant's Buck Steam Station has three permitted outfalls (001, 002 and 002A) discharging directly into the Yadkin River which are included in the Buck Steam Station NPDES Permit.
- 79. Defendant's Buck Steam Station NPDES Permit does not authorize the Defendant to make any outlet or discharge any wastewater or stormwater other than those included in the Buck Steam Station NPDES Permit.

- 80. Seeps identified at Defendant's Buck Steam Station, include engineered discharges from the toe-drains of its Ash Basin and Ash Settling Ponds, which are different locations from the outfalls described in the Buck Steam Station NPDES Permit.
- 81. A seep or discharge from the Ash Basin, the Ash Settling Ponds or any other part of the Buck Steam Station that is not included in the Buck Steam Station NPDES Permit is an unpermitted discharge in violation of N.C. Gen. Stat. § 143-215.1(a)(1) and (a)(6).

Exceedances in Violation of the 2L Groundwater Standards at the Buck Steam Station

- 82. The Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the Buck Steam Station from March 2011 through July 16, 2013, and prepared a chart of the Ash Pond Exceedances which are listed in the Buck Steam Station Ash Pond Exceedances Chart. *See* Plaintiff's Exhibit No. 7.
- 83. The Buck Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Boron (700 μg/L) in MW-11D during seven sampling events from March 2011 to March 2013, with concentrations ranging from 1,130 μg/L to 1,290 μg/L. Although Boron is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicate impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 84. The Buck Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for Manganese (50 μg/L) in MW-10D, MW-11D and MW-11S during seven sampling events from March 2011 to March 2013, with concentrations ranging from 56 μg/L to 1,130 μg/L. Although Manganese is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicate impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.

- 85. The Buck Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for Total Dissolved Solids (500 mg/L) in MW-10D during six sampling events from March 2011 to March 2013, with concentrations ranging from 561 mg/L to 630 mg/L. The presence of Total Dissolved Solids in groundwater and the specific occurrence at this site indicate impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 86. The Buck Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for Sulfate (250 mg/L) in MW-10D during seven sampling events from March 2011 to March 2013, with concentrations ranging from 320 mg/L to 350 mg/L. Although Sulfate is a naturally occurring compound, its presence in groundwater and specific occurrence at this site indicate impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 87. The Buck Steam Station Ash Pond Exceedances Chart also shows exceedances from the 2L Groundwater Standard for Iron (300 μg/L) in MW-11D during seven sampling events from March 2011 to March 2013, with concentrations ranging from 318 μg/L to 3,230 μg/L. Although Iron is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicate impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 88. Defendant's exceedances of the 2L Groundwater Standards for Boron, Manganese, Total Dissolved Solids, Sulfate and Iron, at or beyond the compliance boundary of the Ash Basin and the Ash Settling Ponds at Buck Steam Station, are violations of the groundwater standards as prohibited by 15A NCAC 2L.0103(d).

Other Exceedances of the 2L Groundwater Standards at Buck Steam Station

- 89. The Buck Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Chromium (10 μ g/L) in MW-12S during three sampling events from March through November 2011, with concentrations ranging from 11 μ g/L to 28 μ g/L.
- 90. The Buck Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 μ g/L) in MW-12S, MW-6S, MW-7D, MW-7S, MW-8S, and MW-9S during seven sampling events from March 2011 to March 2013, with concentrations ranging from 52 μ g/L to 444 μ g/L.
- 91. The Buck Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Iron (300 μ g/L) in MW-10D, MW-11S, MW-12D, MW-12S, MW-6S, MW-7D, MW-8D, MW-8S, MW-9D and MW-9S during four sampling events from March 2011 to March 2013, with concentrations ranging from 323 μ g/L to 2,000 μ g/L.
- 92. The DWR staff is working with the Defendant to determine if these exceedances are naturally occurring or if corrective action will be required.

Allen Steam Station

- 93. On February 8, 1977, pursuant to N.C. Gen. Stat. § 143-215.1, other lawful statutes and regulations issued by the Commission, and the Clean Water Act, the DWQ issued NPDES Permit No. NC0004979, to Defendant or Defendant's predecessor for the Allen Steam Station ("Allen Steam Station NPDES Permit"), located in Belmont, Gaston County, (NCSR 2525), North Carolina.
- 94. The Allen Steam Station NPDES Permit has been renewed subsequently. The current NPDES Permit was re-issued on January 18, 2011, with an effective date of March 1, 2011, and with an expiration date of February 28, 2015. A copy of the current Allen Steam

Station NPDES Permit No. NC0004979 is attached hereto as Plaintiff's Exhibit No. 14, and is incorporated herein by reference.

- 95. The Allen Steam Station NPDES Permit authorizes the discharge of treated wastewater to receiving waters designated as the Catawba River and the South Fork Catawba River in the Catawba River Basin in accordance with the effluent limitations, monitoring requirements and other conditions set forth in the Allen Steam Station NPDES Permit.
- 96. The Allen Steam Station NPDES Permit authorizes a Condenser Cooling Water ("CCW") once through discharge directly into the South Fork Catawba River from Outfall 001.
- 97. The Allen Steam Station NPDES Permit authorizes the operation of a septic tank and ash pond with pH adjustment and the discharge of domestic wastewater, stormwater runoff, ash sluice, water treatment system wastewaters, FGD system blowdown, landfill leachate and miscellaneous cleaning and maintenance wash waters discharge from Outfall 002.
- 98. The Allen Steam Station NPDES Permit authorizes a coal yard sump overflow discharge from Outfall 002A.
- 99. The Allen Steam Station NPDES Permit authorizes a power house sump overflow discharge from Outfall 002B.
- 100. The Allen Steam Station NPDES Permit authorizes miscellaneous equipment non-contact cooling and sealing water discharges from Outfall 003.
- 101. The Allen Steam Station NPDES Permit authorizes miscellaneous non-contact cooling water, vehicle washwater, and intake screen backwash discharges from Outfall 004.
- 102. The Allen Steam Station NPDES Permit authorizes an FGD wet scrubber wastewater treatment system consisting of a flow equalization tanks, a maintenance tank, feed systems for lime, sulfide, ferric chloride, polymer hydrochloric acid, and molasses-based

nutrient, two clarifiers, dual heat exchangers, a selenium reduction bioreactor and a sludge treatment system including three filter presses and it discharges through Internal Outfall 005 to the ash settling basin.

- 103. The Allen Steam Station discharges into the Catawba River (Class WS-IV B waters) from Outfalls 002, 0002A, 002B and 004, and discharges into the South Fork Catawba River (Class WS-V waters), from Outfalls 001 and 003. Both discharges are in the Catawba River Basin.
- 104. The effluent limitations and monitoring requirements in the Allen Steam Station NPDES Permit for the discharge from Outfall 001 for the once through condenser cooling water ("CCW") requires sampling for the following parameters: Flow and Temperature from June to September and October to May. Chlorination of the CCW is not allowed under this permit.
- 105. The effluent limitations and monitoring requirements in the Allen Steam Station NPDES Permit for the discharge from Outfall 002 (the Ash Pond effluent), require sampling for the following parameters: Flow, Oil and Grease, Total Suspended Solids, pH, Total Mercury, Total Iron, Total Arsenic, Total Beryllium, Total Cadmium, Total Chromium, Total Copper, Total Nickel, Total Silver, Total Zinc, Total Nitrogen, and Chronic Toxicity.
- 106. The effluent limitations and monitoring requirements in the Allen Steam Station NPDES Permit for the discharge from Outfall 002A (the Coal Yard Sump Overflows), require sampling for the following parameters: Flow, Oil and Grease, pH, Total Iron, Total Suspended Solids and Fecal Coliform. The Allen Steam Station NPDES Permit also prohibits a discharge of floating solids or foam from Outfall 002A.
- 107. The effluent limitations and monitoring requirements in the Allen Steam Station NPDES Permit for the discharge from Outfall 002B (the Power House Sump Overflows),

require sampling for the following parameters: Flow, Oil and Grease, pH, Total Iron, Total Suspended Solids and Total Copper. The Allen Steam Station NPDES Permit also prohibits a discharge of floating solids or foam from Outfall 002B.

- 108. The effluent limitations and monitoring requirements in the Allen Steam Station NPDES Permit for the discharge from the once through cooling water from Outfall 003, miscellaneous equipment non-contact water and sealing water, require sampling for the Flow parameter. No chlorination is allowed under this permit.
- 109. The effluent limitations and monitoring requirements in the Allen Steam Station NPDES Permit for the discharge from the once through cooling water from Outfall 004 (miscellaneous non-contact water, vehicle waste water and intake screen backwash), require sampling for the following parameters: Oil and Grease and Flow.
- 110. The effluent limitations and monitoring requirements in the Allen Plant NPDES permit for the discharge from Internal Outfall 005 (treated FGD wet scrubber wastewater to the Ash Pond) require sampling for the following parameters: Flow, Total Suspended Solids, Total Mercury, Total Iron, Total Arsenic, Total Beryllium, Total Cadmium, Total Chromium, Chloride, Total Nickel, Carbonaceous Oxygen Demand ("COD"), Total Silver, and Total Zinc.

Unpermitted Seeps at the Allen Steam Station

- 111. As mentioned above, the Defendant's Allen Steam Station has six permitted outfalls discharging directly into the Catawba River and the South Fork Catawba River which are included in the Allen Steam Station NPDES Permit.
- 112. Defendant's Allen Steam Station NPDES Permit does not authorize the Defendant to make any outlet or discharge any wastewater or stormwater other than those included in the Allen Steam Station NPDES Permit.

- 113. Seeps identified at Defendant's Allen Steam Station, include engineered discharges from the toe-drains of its Ash Pond, which are different locations from the outfalls described in the Allen Steam Station NPDES Permit.
- 114. Upon information and belief, Plaintiff believes there are other non-engineered seeps at Defendant's Allen Steam Station, which are different locations from the outfalls described in the Allen Steam Station NPDES Permit.
- 115. A seep or discharge from the Ash Pond or any other part of the Allen Steam Station that is not included in the Allen Steam Station NPDES Permit is an unpermitted discharge in violation of N.C. Gen. Stat. § 143-215.1(a)(1) and (a)(6).

Exceedances of the 2L Groundwater Standards at the Allen Steam Station

- 116. The Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the Allen Steam Station from March 2011 through July 16, 2013, and prepared a chart of the Ash Pond Exceedances which are listed in the Allen Steam Station Ash Pond Exceedances Chart. *See* Plaintiff's Exhibit No. 8.
- 117. The Allen Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Iron (300 μ g/L) in compliance wells AB-1R, AB-11D, AB-12D, AB-13D, and AB-14D during seven sampling events from March 2011 through March 2013, with concentrations of ranging from 301 μ g/L to 8,350 μ g/L.
- 118. The Allen Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 μ g/L) in AB-12S, AB-13D, AB-13S, AB-14D and AB-4S during seven sampling events from March 2011 through March 2013, with concentrations of ranging from 53 μ g/L to 945 μ g/L.

- 119. The Allen Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Nickel (100 μ g/L) in AB-14D during seven sampling events from March 2011 through March 2013, with concentrations ranging from 121 μ g/L to 544 μ g/L.
- 120. The DWR staff is working with the Defendant to determine if these exceedances are naturally occurring or if corrective action will be required.

Belews Creek Steam Station

- 121. On June 30, 1977, pursuant to N.C. Gen. Stat. § 143-215.1, other lawful statutes and regulations issued by the Commission, and the Clean Water Act, DWQ issued NPDES Permit No. NC0024406 to Defendant or Defendant's predecessor for the Belews Creek Steam Station ("Belews Creek Steam Station NPDES Permit"), located in Stokes County, North Carolina.
- 122. The Belews Creek Steam Station NPDES Permit has been renewed subsequently. The current Belews Creek Steam Station NPDES Permit was re-issued on October 12, 2012, with an effective date of November 1, 2012, and with an expiration date of February 28, 2017. A copy of the current Belews Creek Steam Station NPDES Permit No. NC0024406, is attached hereto as Plaintiff's Exhibit No. 15, and is incorporated herein by reference.
- 123. Belews Creek Steam Station NPDES Permit authorizes the discharge of treated wastewater to receiving waters designated as the West Belews Creek/Belews Lake, and the Dan River in the Roanoke River Basin in accordance with the effluent limitations, monitoring requirements and other conditions set forth in the NPDES permit.
- 124. The Belews Creek Steam Station NPDES Permit authorizes an Ash Basin discharge at Outfall 003 that discharges into West Belews Creek/Belews Lake. The ash pond receives wastestreams from the power house and yard holding sumps, ash sluice lines, chemical

holding pond, coal yard sumps, stormwater and remediated groundwater, and treated FGD wastewater from Internal Outfall 002.

- 125. The Belews Creek Steam Station NPDES Permit authorizes once through cooling water that discharges a wastestream into West Belews Creek/Belews Lake at Outfall 001.
- 126. The Belews Creek Steam Station NPDES Permit authorizes an FGD wet scrubber wastewater treatment system which discharges to the Ash Pond via Internal Outfall 002.
- 127. The effluent limitations and monitoring requirements in the Belews Creek Steam Station NPDES Permit for Outfall 003 (the Ash Pond Treatment System) require sampling for the following parameters: Flow, Oil and Grease, Total Suspended Solids, Total Arsenic, Chlorides, Total Iron, Total Copper, Total Selenium, Total Silver, Fluoride, Total Phosphorus, Total Nitrogen, Sulfates, pH, Bromides, Total Mercury and Chronic Toxicity.
- 128. The effluent limitations and monitoring requirements in the Belews Creek Steam Station NPDES Permit for Outfall 001 (the once through non-contact cooling water system) require sampling for the following parameters: Flow and Temperature.
- 129. The effluent limitations and monitoring requirements in the Belews Creek Steam Station NPDES Permit for Internal Outfall 002 (FGD wet scrubber wastewater treatment system) include Flow, Total Suspended Solids, Total Arsenic, Chlorides, Total Mercury, and Total Selenium.

Unpermitted Seeps at the Belews Creek Steam Station

130. As mentioned above, the Defendant's Belews Creek Steam Station has three permitted outfalls discharging directly into West Belews Creek/Belews Lake and the Dan River which are included in the Belews Creek Steam Station NPDES Permit.

- 131. Defendant's Belews Creek Steam Station NPDES Permit does not authorize the Defendant to make any outlet or discharge any wastewater or stormwater other than those included in the Belews Creek Steam Station NPDES Permit.
- 132. Seeps identified at Defendant's Belews Creek Steam Station, include engineered discharges from the toe-drains of its Ash Pond, which are different locations from the outfalls described in the Belews Creek Steam Station NPDES Permit.
- 133. A seep or discharge from the Ash Pond or any other part of the Belews Creek Steam Station that is not included in the Belews Creek Steam Station NPDES Permit is an unpermitted discharge in violation of N.C. Gen. Stat. § 143-215.1(a)(1) and (a)(6).

Exceedances of the 2L Groundwater Standards at the Belews Creek Steam Station

- 134. The Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the Belews Creek Steam Station from January 2011 through July 16, 2013, and prepared a chart of the Ash Pond Exceedances which are listed in the Belews Creek Steam Station Ash Pond Exceedances Chart. *See* Plaintiff's Exhibit No. 10.
- 135. The Belews Steam Station Ash Pond Exceedances Chart shows an exceedance from the 2L Groundwater Standard for Chromium (10 μ g/L) in MW-202D during one sampling event in January 2011, with a concentration of 15 μ g/L.
- 136. The Belews Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Iron (300 μ g/L) in MW-200D, MW-200S, MW-201D, MW-202D, MW-204D and MW-204S during eight sampling events from January 2011 to May 2013, with concentrations ranging from 310 μ g/L to 14,100 μ g/L. However, over half of these wells showed three samples that were under the 2L Groundwater Standard and thus the compliance status for these wells is unclear pending further information.

- 137. The Belews Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 μ g/L) in MW-200D, MW-200S, MW-201D, MW-202D, MW-204D, and MW-204S, during eight sampling events, from January 2011 to May 2013, with concentrations ranging from 53 μ g/L to 3,600 μ g/L.
- 138. The DWR staff is working with the Defendant to determine if these exceedances are naturally occurring or if corrective action will be required.

Dan River Combined Cycle Station

- 139. On August 30, 1976, pursuant to N.C. Gen. Stat. § 143-215.1, other lawful statutes and regulations issued by the Commission, and the Clean Water Act, DWQ issued NPDES Permit No. NC0003468 to Defendant or Defendant's predecessor for the Dan River Combined Cycle Station ("Dan River Combined Cycle Station NPDES Permit"), located in Rockingham County, North Carolina.
- 140. The Dan River Combined Cycle Station NPDES Permit has been renewed subsequently. The current Dan River Combined Cycle Station NPDES Permit was re-issued on January 31, 2013, with an effective date of March 1, 2013, and with an expiration date of April 30, 2017. A copy of the current Dan River Combined Cycle Station NPDES Permit No. NC0003468 is attached hereto as Plaintiff's Exhibit No. 16, and is incorporated herein by reference
- 141. The Dan River Combined Cycle Station NPDES permit authorizes the discharge of treated wastewater to receiving waters designated as the Dan River in the Roanoke River Basin in accordance with the effluent limitations, monitoring requirements and other conditions set forth in the Dan River Combined Cycle Station NPDES permit.

- 142. The Dan River Combined Cycle Station NPDES Permit authorizes an Ash Basin Discharge at Outfall 002 that discharges directly into the Dan River. The ash pond receives low volume wastes, boiler cleaning wastewater, ash disposal, stormwater, boiler blowdown, and metal washing wastewater.
- 143. The Dan River Combined Cycle Station NPDES Permit authorizes a once through cooling water and cooling tower blowdown from the combined cycle unit, intake screen backwash, plant collection sumps (low volume wastes), and treated domestic wastewater that discharges a wastestream directly into the Dan River through Outfall 001.
- 144. The Dan River Combined Cycle Station NPDES Permit authorizes wastes from the filtered water plant including miscellaneous washdown water and laboratory wastes (low volume waste sources) from Internal Outfall 001A.
- 145. The Dan River Station NPDES Permit authorizes a yard sump overflow consisting of stormwater runoff, miscellaneous sumps and coal yard runoff via Outfall 002A.
- 146. The effluent limitations and monitoring requirements in the Dan River Combined Cycle Station NPDES Permit for Outfall 002 (the Ash Pond Treatment System) require sampling for the following parameters: Flow, pH, Total Iron, Total Suspended Solids, Sulfate, Acute Toxicity, Oil and Grease, Nitrate/Nitrate Nitrogen, Total Kjeldahl Nitrogen, Total Nitrogen, and Total Phosphorus.
- 147. The effluent limitations and monitoring requirements in the Dan River Combined Cycle Station NPDES Permit for the once through non-contact cooling water system require sampling for the following parameters: Flow (MGD), Temperature, Total Iron, Total Suspended Solids, pH, and Total Residual Chlorine.

- 148. The effluent limitations and monitoring requirements in the Dan River Combined Cycle Station NPDES Permit for Outfall 001 (the once through cooling water and cooling tower blowdown and domestic wastewater) require sampling for the following parameters: Flow, Temperature, Total Iron, Total Suspended Solids, pH and Total Residual Chlorine.
- 149. The effluent limitations and monitoring requirements in the Dan River Combined Cycle Station NPDES Permit for Outfall 001A (the wastes from the filtered water plant) require sampling for the following parameters: Total Suspended Solids and Oil and Grease.
- 150. The effluent limitations and monitoring requirements in the Dan River Combined Cycle Station NPDES Permit for Outfall 002A (the yard sump overflows system) require sampling for the following parameters: Flow, pH, Oil and Grease, Total Suspended Solids and Total Iron.

Unpermitted Seeps at the Dan River Combined Cycle Station

- 151. As mentioned above, the Defendant's Dan River Combined Cycle Station has four permitted outfalls discharging directly into the Dan River which are included in the Dan River Combined Cycle Station NPDES Permit.
- 152. Defendant's Dan River Combined Cycle Station NPDES Permit does not authorize the Defendant to make any outlet or discharge any wastewater or stormwater other than those included in the Dan River Combined Cycle Station NPDES Permit.
- 153. Seeps identified at Defendant's Dan River Combined Cycle Station, include engineered discharges from the toe-drains of its Ash Pond, which are different locations from the outfalls described in the Dan River Combined Cycle Station NPDES Permit.

154. A seep or discharge from the Ash Pond or any other part of the Dan River Combined Cycle Station that is not included in the Dan River Combined Cycle Station NPDES Permit is an unpermitted discharge in violation of N.C. Gen. Stat. § 143-215.1(a)(1) and (a)(6).

Exceedances in Violation of the 2L Groundwater Standards at the Dan River Combined Cycle Station

- 155. The Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the Dan River Combined Cycle Station from January 2011 through July 16, 2013, and prepared a chart of the Ash Pond Exceedances which are listed in the Dan River Combined Cycle Station Ash Pond Exceedances Chart. *See* Plaintiff's Exhibit No. 10.
- 156. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Antimony (1 μg/L) in MW-21S during two sampling events on September 2011 and May 2012, with concentrations of 1.19 μg/L and 1.3 μg/L, respectively; and in MW-22D during four sampling events from January 2012 to May 2013, with concentrations ranging from1.1 μg/L to 1.6 μg/L. Although Antimony is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 157. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Arsenic (10 μ g/L) in MW-21S during eight sampling events from January 2011 to May 2013, with concentrations ranging from 21 μ g/L to 45 μ g/L. Although Arsenic is a naturally occurring element, its presence in groundwater and

specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.

- 158. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Boron (700 μg/L) in MW-22D during three sampling events from January 2012 to January 2013, with concentrations ranging from 711 μg/L to 793 μg/L and in MW-22S during one sampling event in May 2013 with a concentration of 903 μg/L. Although Boron is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 159. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Iron (300 μg/L) in MW-20S and MW-22S during eight sampling events from January 2011 to May 2013, with concentrations ranging from 829 μg/L to 19,400 μg/L. Although Iron is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 160. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 μg/L) in monitoring wells MW-20D, MW-20S, MW-21S, MW-21D, MW-22D, and MW-22S during eight sampling events from January 2011 to May 2013, with concentrations ranging from 306 μg/L to 1,050 μg/L. Although Manganese is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.

- 161. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Total Dissolved Solids (500 mg/L) in MW-21D during eight sampling events from January 2011 to May 2013, with concentrations ranging from 643 mg/L to 770 mg/L. The presence of Total Dissolved Solids in groundwater and the specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 162. The Dan River Combined Cycle Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Sulfate (250 mg/L) in well MW-21D during eight sampling events from January 2011 to May 2013, with concentrations ranging from 310 mg/L to 350 mg/L. Although Sulfate is a naturally occurring compound, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 163. Defendant's exceedances of the 2L Groundwater Standards for Antimony, Arsenic, Boron, Iron, Manganese, Total Dissolved Solids and Sulfate, at or beyond the compliance boundary of the Ash Pond at the Dan River Combined Cycle Station, are violations of the groundwater standards as prohibited by 15A NCAC 2L.0103(d).

Other Exceedances of 2L Groundwater Standards at Dan River Combined Cycle Station

- 164. The Dan River Combined Cycle Station Ash Pond Exceedances Chart consistently shows exceedances from the 2L Groundwater Standard for Iron in wells MW-22D and MW-23D, and Manganese in well MW-23D during eight sampling events from January 2011 to May 2013.
- 165. The DWR staff is working with the Defendant to determine if these exceedances are naturally occurring or if corrective action will be required.

Marshall Steam Station

- 166. On March 3, 1976, pursuant to N.C. Gen. Stat. § 143-215.1, other lawful statutes and regulations issued by the Commission, and the Clean Water Act, the DWQ issued NPDES Permit No. NC0004987 to Defendant or Defendant's predecessor for the Marshall Steam Station ("Marshall Steam Station NPDES Permit"), located in Terrell, Catawba County, (NCSR 1841), North Carolina.
- 167. The Marshall Steam Station NPDES Permit has been renewed subsequently. The current Marshall Steam Station NPDES Permit was re-issued on January 18, 2011, with an effective date of March 1, 2011, and with an expiration date of April 30, 2015. A copy of the current Marshall Steam Station NPDES Permit No. NC0004987 is attached hereto as Plaintiff's Exhibit No. 17, and is incorporated herein by reference.
- 168. The Marshall Steam Station NPDES Permit was modified on January 18, 2009 to reflect a name change to "Duke Energy Carolinas, LLC".
- 169. The Marshall Steam Station NPDES Permit authorizes the continued discharge of treated wastewater to receiving waters designated as the Catawba River (Lake Norman) (Class B-CA waters) in the Catawba River Basin in accordance with the effluent limitations, monitoring requirements and other conditions set forth therein.
- 170. The Marshall Steam Station NPDES Permit authorizes a once through cooling water discharge at Outfall 001 at the intersection of Highway 150 and NCSR 1841.
- 171. The Marshall Steam Station NPDES Permit authorizes treated wastewater, i.e., metal cleaning waters, coal pile runoff, ash transport water, domestic wastewater, low volume wastes and an FGD wet scrubber waste water, from the Ash Settling Pond through Outfall 002.

- 172. The Marshall Steam Station NPDES Permit authorizes a discharge of treated FGD wet scrubber wastewater through Internal Outfall 004, upstream of the Ash Pond.
- 173. The Marshall Steam Station NPDES Permit authorizes discharges of sump overflows through Outfalls 002A and 002B.
- 174. The Marshall Steam Station NPDES Permit authorizes discharges of non-contract cooling water through Outfall 003 from the induced draft fan control house.
- 175. The effluent limitations and monitoring requirements in the Marshall Steam Station NPDES Permit for the discharge from Outfall 001 (once through cooling water) require sampling for the following parameters: Flow, Temperature and Free Available Chlorine.
- Station NPDES Permit for the discharge from Outfall 002 (Ash Pond effluent) require sampling for the following parameters: Flow, Oil and Grease, Total Suspended Solids, Total Arsenic, Chloride, Total Copper, Total Iron, Total Mercury, Total Nickel, Total Selenium, Total Selenium limits effective July 1, 2012, Total Zinc, Total Nitrogen, Total Phosphorus, Chronic Toxicity and pH.
- 177. The effluent limitations and monitoring requirements in the Marshall Steam Station NPDES Permit for the discharge from Outfall 002A (yard sump #1 overflows) require sampling for the following parameters: Flow, pH, Total Iron, and Total Suspended Solids.
- 178. The effluent limitations and monitoring requirements in the Marshall Steam Station NPDES Permit for the discharge from Outfall 002B (yard sump #2 overflows) require sampling for the following parameters: Flow, pH, Total Iron and Total Suspended Solids.
- 179. The effluent limitations and monitoring requirements in the Marshall Steam Station NPDES Permit for the discharge from Outfall 003 (non-contact cooling water from the

induced draft fan control house) require sampling for the following parameters: Flow, Temperature, Total Residual Chlorine, Free Available Chlorine and pH.

- 180. The effluent limitations and monitoring requirements in the Marshall Steam Station NPDES Permit for the discharge from the Internal Outfall 004 (treated FGD wet scrubber wastewater to the Ash Pond and effluent from the constructed wetland prior to discharge to the ash settling basin) require sampling for the following parameters: Flow, Total Selenium and Total Zinc.
- 181. The Marshall Steam Station NPDES Permit prohibits the discharge of floating solids or visible foam other than in trace amounts from any of its outfalls.

Exceedances in Violation of 2L Groundwater Standards at the Marshall Steam Station

- 182. The Plaintiff's Aquifer Protection staff compiled tables of the analytical results of groundwater samples collected at the Marshall Steam Station from February 2011 through July 16, 2013, and prepared a chart of the Ash Pond Exceedances which are listed in the Marshall Steam Station Ash Pond Exceedances Chart. *See* Plaintiff's Exhibit No. 11.
- 183. The Marshall Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Boron (700 μg/L) in wells MW-14D and MW-14S, during seven sampling events from February 2011 to February 2013, with concentrations ranging from 2,960 μg/L to 4,530 μg/L. Although Boron is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 184. The Marshall Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 µg/L) in well MW-14D during five sampling events and in well MW-14S during seven sampling events from February 2011 to

February 2013, with concentrations ranging from 51 μ g/L to 192 μ g/L. Although Manganese is a naturally occurring element, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.

- 185. The Marshall Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Total Dissolved Solids (500 mg/L) in well MW-14D during four sampling events and in well MW-14S during seven sampling events from February 2011 to February 2013, with concentrations ranging from 510 mg/L to 650 mg/L. The presence of Total Dissolved Solids in groundwater and the specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 186. The Marshall Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Sulfate (250 µg/L) in wells MW-14D and MW-14S in seven sampling events from February 2011 to February 2013, with concentrations ranging from 270 mg/L to 400 mg/L. Although Sulfate is a naturally occurring compound, its presence in groundwater and specific occurrence at this site indicates impacts to groundwater resulting from the wastewater treatment and disposal associated with coal burning activities.
- 187. Defendant's exceedances of the 2L Groundwater Standards for Boron, Manganese, Total Dissolved Solids and Sulfate, at or beyond the compliance boundary of the Ash Pond at the Marshall Steam Station, are violations of the groundwater standards as prohibited by 15A NCAC 2L.0103(d).

Other Exceedances of the 2L Groundwater Standards at Marshall Steam Station

- 188. The Marshall Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Iron (300 μ g/L) in wells MW-4D, MW-10S, MW-11D, MW-11S, MW-12D, MW-13S, and MW-14S during seven sampling events from February 2011 to February 2013, with concentrations ranging from 305 μ g/L to 1,060 μ g/L.
- 189. The Marshall Steam Station Ash Pond Exceedances Chart shows exceedances from the 2L Groundwater Standard for Manganese (50 μ g/L) in wells MW-10D, MW-10S, MW-12S and MW-13S during five sampling events from February 2011 to February 2013, with concentrations ranging from 54 μ g/L to 127 μ g/L.
- 190. The DWR staff is working with the Defendant to determine if these exceedances are naturally occurring or if corrective action will be required.

CLAIMS FOR RELIEF

- 191. The allegations contained in paragraphs 1 through 190 are incorporated into these claims for relief as if fully set forth herein.
- 192. With the exception of the Marshall Steam Station, which has no unpermitted seeps, Defendant's unpermitted seeps from the 5 of the 6 Facilities (Cliffside, Buck, Allen, Belews Creek and Dan River) are violations of N.C. Gen. Stat. §§ 143-215.1(a)(1) and (a)(6).
- 193. Defendant's exceedances of the groundwater standards for Boron, Manganese, Total Dissolved Solids, Sulfate and Iron, at or beyond the compliance boundary of the Ash Basin and the Ash Settling Ponds at Buck Steam Station, are violations of the 2L Groundwater Standards as prohibited by 15A NCAC 2L.0103(d).
- 194. Defendant's exceedances of the groundwater standards for Antimony, Arsenic, Boron, Iron, Manganese, Total Dissolved Solids and Sulfate, at or beyond the compliance

boundary of the Ash Pond at the Dan River Combined Cycle Station, are violations of the 2L Groundwater Standards as prohibited by 15A NCAC 2L.0103(d).

- 195. Defendant's exceedances of the groundwater standards for Boron, Manganese, Total Dissolved Solids and Sulfate, at or beyond the compliance boundary of the Ash Pond at the Marshall Steam Station, are violations of the 2L Groundwater Standards as prohibited by 15A NCAC 2L.0103(d).
- 196. Plaintiff is entitled to injunctive relief, as set forth more specifically in the prayer for relief, pursuant to N.C. Gen. Stat. § 143-215.6C.
- 197. Defendant's violations of N.C. Gen. Stat. §§ 143-215.1(a)(1) and (a)(6) for the unpermitted seeps and Defendant's violations and potential violations of the 2L Groundwater Standards, without assessing the problem and taking corrective action, pose a serious danger to the health, safety and welfare of the people of the State of North Carolina and serious harm to the water resources of the State.

PRAYER FOR RELIEF

WHERFORE, the Plaintiff, State of North Carolina, prays that the Court grant to it the following relief:

- 1. That the Court accepts this verified complaint as an affidavit upon which to base all orders of the Court;
- 2. That the Court preliminarily, and upon final judgment permanently enter a mandatory injunction requiring the Defendant to abate the violations of N.C. Gen. Stat. § 143-215.1, NPDES Permits and groundwater standards at the 6 Facilities;
- 3. That the Court preliminarily, and upon final judgment permanently enter a mandatory injunction requiring the Defendant take the steps required in the attached "Ash Ponds

Assessment Needs," which is attached hereto as Plaintiff's Exhibit No. 18, and is incorporated herein by reference;

- 4. That the Defendant be taxed with the costs of this action;
- 5. Any other and further relief that the Court deems to be just and proper.

Respectfully submitted, this the <u>day</u> of August, 2013.

ROY COOPER

Attorney General

By Kathryn Jones Cooper

Special Deputy Attorney General

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By

Jane L. Oliver

Assistant Attorney General

Smel Driver

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N.C. Department of Justice

Environmental Division

Post Office Box 629

Raleigh, NC 27602-0629

(919) 716-6600 phone

(919) 716-6750 facsimile

Attorneys for the Plaintiff State of North Carolina ex rel. North Carolina Department of Environment and Natural Resources

COUNTY OF WAKE

Jeffrey Poupart, first being duly sworn, deposes and says that he is the Point Source Branch Supervisor of the Surface Water Protection Section of the Division of Water Resources in the North Carolina Department of Environment and Natural Resources; that he has read the foregoing verified Complaint and Motion For Injunctive Relief, and that he is acquainted with the facts and circumstances alleged therein; and believes them to be true.

Jeffrey Poupart

County, North Carolina

I certify that the following person appeared before me this day, acknowledging to me that he signed the foregoing document: Jeffrey Poupart.

16th day of August, 2013.

Cinna V. Smith

Official Signature of Notary

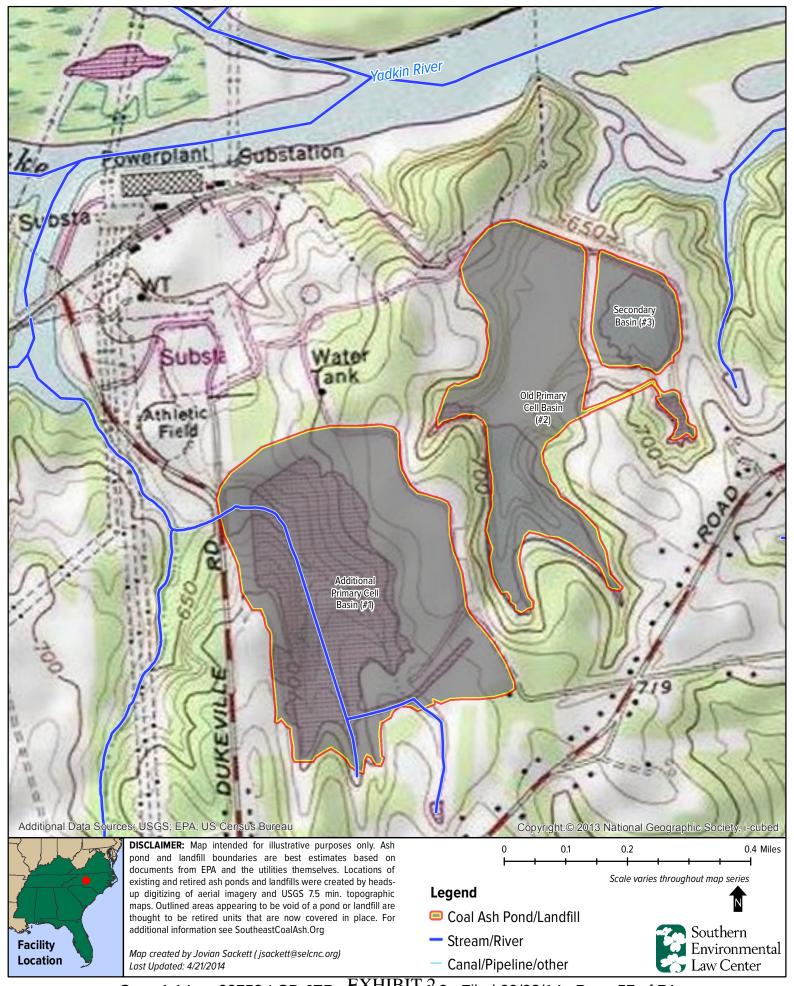
Anna V. Smith

Notary's printed or typed name

My Commission Expires: 10/22/16

(Official Seal)

Buck Power Station





North Carolina Department of Environment and Natural Resources

Pat McCrory Governor John E. Skvarla, III Secretary

NOTICE OF DEFICIENCY

7011 1570 0000 0154 7418

7011 1570 0000 0154 7425

June 13, 2014

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Duke Energy Corporation
Attention: Mr. Sean DeNeale, Engineer II

Environmental Services Post Office Box 1006 Mail Code EC 13K

Charlotte, North Carolina 28201-1006

Duke Energy Corporation Attention: Mr. John Elnitsky, Vice President

Project Management and Construction

Post Office Box 1007 Mail Code ST-28U Charlette North Care

Charlotte, North Carolina 28201-1007

RE: Buck Steam Station Main Dam

ROWAN-047 – High Hazard Potential

Yadkin – Pee Dee River Basin

Rowan County

Dear Mr. DeNeale and Mr. Elnitsky:

The "Dam Safety Law of 1967," as amended, provides for the certification and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of such dams; to prevent injuries to persons, damage to property; and to insure the maintenance of stream flows.

Our records indicate that you are the owner/and or responsible for the referenced dam, which is located off Dukeville Road in Rowan County. On May 6, 2014, this Office received a digital copy of an internal inspection of the spillway system for the referenced dam. This submittal was in

Division of Energy, Mineral, and Land Resources

Land Quality Section - Mooresville Regional Office
610 East Center Avenue, Suite 301, Mooresville, North Carolina 28115

Telephone: 704-663-1699 / FAX: 704-663-6040 • Internet: http://portal.ncdenr.org/web/lr/land-quality
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EXHIBIT 3

Duke Energy Corporation June 13, 2014 Page 2 of 3

response to an information request issued by this Division on March 5, 2014, in which this Division requested that Duke Energy camera inspect all facilities that have decant structures with corrugated metal pipe (CMP) and concrete components. The decant structure for this dam is comprised of a concrete riser with a CMP pipe barrel. The video was originally submitted to this Division on December 10, 2013 with an engineered evaluation. The evaluation stated in part, "The 2013 condition of the pipe is similar to the previous condition in 2012. Thus, there is no change in the conclusion that the pipe currently does not show signs of being in a critical condition for the immediate future, but evidence that it is approaching the end of its safe performance life includes: 1) The age of the pipe; 2) the failing asphalt coating; 3) The rusted walls, and 4) The leaks (at two locations) through walls between joints."

A preliminary review of the camera inspection video of the decant structure and report has been performed by personnel of the Land Quality Section for the referenced dam. Comparison was made between the submitted video and an internal inspection video of the discharge barrel submitted by Duke Energy Corporation on January 27, 2011. The current video documented numerous infiltration drippers and weeping locations. At approximate location 285.9, dripping has increased to two locations, with increased flow in this area.

The condition of the decant structure appears serious enough to justify further engineering study in order to determine appropriate remedial measures. Your dam is categorized as a "High Hazard" dam. In the event of dam failure, significant environmental damage to the Yadkin River could occur due to release of coal ash stored behind the dam.

In order to ensure the safety of this dam, you are directed to retain the services of a registered professional engineer competent in the area of dam safety to review the internal video and provide a professional assessment of the decant structure with regard to overall structural integrity and recommendations for repair. Plans and specifications for repair based on the results of the study must be filed with the Division of Energy, Mineral and Land Resources for approval pursuant to the North Carolina Administrative Code, Title 15A, Subchapter 2D – Dam Safety (15A NCAC 2K). Please note any excavations in the dam or major repair work to this dam must be approved by this Division before any work is done. Additionally, please note that this dam may not be breached, meaning the dam may not be drained by cutting a notch in the dam, without prior engineered breach plans being submitted to and approved by this Division.

Please submit a written response as quickly as possible, but no later than ten (10) days following receipt of this Notice to advise us of your intended actions in this matter. This response must include a schedule for repair plan development and implementation. If positive action is not taken within thirty (30) days or before July 17, 2014, whichever term is longer, we shall present the case information for appropriate enforcement action in accordance with North Carolina General Statute 143-215.36. Enforcement action could include a civil penalty of up to \$500.00 per day of violation, and/or issuance of a Dam Safety Order requiring the repair or removal of this dam, and/or injunctive relief to gain compliance.

Please notify this Office in writing if you wish to assert that you have no ownership or are otherwise not responsible for maintenance or repairs to the subject dam. If you have an emergency situation

Duke Energy Corporation June 13, 2014 Page 3 of 3

during non-office hours, you should notify 911 and the State Emergency Operations center at 1-(800) 858-0368. They will notify the appropriate personnel in this office of the situation.

It is recommended that you or your engineer direct questions related to repair applications or the dam plan review process to our dam safety staff at (919) 707-9220. All plans, specifications design data, and calculations must be submitted to the State Dam Safety Engineer. If you have any questions regarding this letter, please contact me at (704) 663-1699. Your cooperation and consideration in maintaining a safe dam is appreciated.

Sincerely,

ec:

Zahid S. Khan, CPM, CPESC, CPSWQ

Regional Engineer Land Quality Section

Zeliel S. K.

Steven M. McEvoy, PE, State Dam Safety Engineer

cc: Water Quality Regional Operations Section



North Carolina Department of Environment and Natural Resources

Pat McCrory Governor John E. Skvarla, III Secretary

NOTICE OF DEFICIENCY

June 13, 2014

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

Duke Energy Corporation Attention: Mr. Sean DeNeale, Engineer II Environmental Services Post Office Box 1006 Mail Code EC 13K Charlotte, North Carolina 28201-1006 7011 1570 0000 0154 7432

Duke Energy Corporation Attention: Mr. John Elnitsky, Vice President Project Management and Construction Post Office Box 1007 Mail Code ST-28U Charlotte, North Carolina 28201-1007 7011 1570 0000 0154 7449

RE: Buck Steam Station Basin 1 to Basin 2 Dam

ROWAN-069 - High Hazard Potential

Yadkin – Pee Dee River Basin

Rowan County

Dear Mr. DeNeale and Mr. Elnitsky:

The "Dam Safety Law of 1967," as amended, provides for the certification and inspection of dams in the interest of public health, safety, and welfare, in order to reduce the risk of failure of such dams; to prevent injuries to persons, damage to property; and to insure the maintenance of stream flows.

Our records indicate that you are the owner/and or responsible for the referenced dam, which is located off Dukeville Road in Rowan County. On May 6, 2014, this Office received a digital copy of an internal inspection of the spillway system for the referenced dam. This submittal was in response to an information request issued by this Division on March 5, 2014, in which this Division requested that Duke Energy camera inspect all facilities that have decant structures with corrugated metal pipe (CMP) and concrete components. The decant structure for this dam is comprised of a concrete riser with a concrete barrel.

A preliminary review of the camera inspection video of the decant structure and report has been performed by personnel of the Land Quality Section for the referenced dam. The video documented a broken pipe section at the 60.1 feet location, and additional cracks and infiltration stains.

Division of Energy, Mineral, and Land Resources Land Quality Section - Mooresville Regional Office

EXHIBIT 4

610 East Center Avenue, Suite 301, Mooresville, North Carolina 28115

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Duke Energy Corporation June 13, 2014 Page 2 of 2

The condition of the decant structure appears serious enough to justify further engineering study in order to determine appropriate remedial measures. Your dam is categorized as a "High Hazard" dam. In the event of dam failure, significant environmental damage to the Yadkin River could occur due to release of coal ash stored behind the dam.

In order to ensure the safety of this dam, you are directed to retain the services of a registered professional engineer competent in the area of dam safety to review the internal video and provide a professional assessment of the decant structure with regard to overall structural integrity and recommendations for repair. Plans and specifications for repair based on the results of the study must be filed with the Division of Energy, Mineral and Land Resources for approval pursuant to the North Carolina Administrative Code, Title 15A, Subchapter 2D – Dam Safety (15A NCAC 2K). Please note any excavations in the dam or major repair work to this dam must be approved by this Division before any work is done. Additionally, please note that this dam may not be breached, meaning the dam may not be drained by cutting a notch in the dam, without prior engineered breach plans being submitted to and approved by this Division.

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Please notify this Office in writing if you wish to assert that you have no ownership or are otherwise not responsible for maintenance or repairs to the subject dam. If you have an emergency situation during non-office hours, you should notify 911 and the State Emergency Operations center at 1-(800) 858-0368. They will notify the appropriate personnel in this office of the situation.

It is recommended that you or your engineer direct questions related to repair applications or the dam plan review process to our dam safety staff at (919) 707-9220. All plans, specifications design data, and calculations must be submitted to the State Dam Safety Engineer. If you have any questions regarding this letter, please contact me at (704) 663-1699. Your cooperation and consideration in maintaining a safe dam is appreciated.

Sincerely,

Zahid S. Khan, CPM, CPESC, CPSWQ

I s. U

Regional Engineer Land Quality Section

ec: Steven M. McEvoy, PE, State Dam Safety Engineer

cc: Water Quality Regional Operations Section

Permit	Facility	Well	Month	Year	Parameter	2L Standar	Value	Units
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2013	00400 - pH	6.5-8.5	5.5	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11		00400 - pH	6.5-8.5	5.8	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	2012	00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	2011	00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2012	00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	2011	00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2011	00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	7	2012	00400 - pH	6.5-8.5	5.7	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	7	2011	. 00400 - pH	6.5-8.5	5.8	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2013	00400 - pH	6.5-8.5	5.8	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2011	00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	2011	00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2012	00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	2012	2 00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	2013	00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	7	201:	L 00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	7	201	2 00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	201:	1 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	11	201	1 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	201	2 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	11	201	2 00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	3	201	3 00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	7	201	2 00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	3	201	1 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	7	201	1 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	11	201	1 00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	3	201	2 00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	11	201	2 00400 - pH	6.5-8.5	6.4	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	201	3 00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	7	201	1 00400 - pH	6.5-8.5	(su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	7	201	2 00400 - pH	6.5-8.5		su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	201	1 00400 - pH	6.5-8.5	6.3	Lsu

Page 1 of 6 Buck 7/16/2013

Permit	Facility	Well	Month	Year	Parameter	2L Standar	Value U	Jnits
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	2012	00400 - pH	6.5-8.5	6.2 s	u
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	11	2012	00400 - pH	6.5-8.5	6.2 s	u
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	11	2011	00400 - pH	6.5-8.5	6.3 s	u
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	3	2012	00400 - pH	6.5-8.5	0 s	u
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	3	2013	00400 - pH	6.5-8.5	6.1 s	u
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	3	2011	00400 - pH	6.5-8.5	6.2 s	u
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	7	2011	00400 - pH	6.5-8.5	6.2 s	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	7	2012	00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	11	2012	00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-13D	11	2011	. 00400 - pH	6.5-8.5	6.4	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6D	3	2012	2 00400 - pH	6.5-8.5	5.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6D	7	2012	00400 - pH	6.5-8.5	5.8	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	7	2012	2 00400 - pH	6.5-8.5	4.5	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	7	2011	00400 - pH	6.5-8.5	5.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	2013	3 00400 - pH	6.5-8.5	5.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	11	2012	2 00400 - pH	6.5-8.5	5.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	2012	2 00400 - pH	6.5-8.5	5.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	11	2011	L 00400 - pH	6.5-8.5	5.4	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	2013	1 00400 - pH	6.5-8.5	5.5	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	3	2013	3 00400 - pH	6.5-8.5	6.4	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	3	2012	2 00400 - pH	6.5-8.5	5.8	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	3	2013	3 00400 - pH	6.5-8.5	5.8	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	7	201	1 00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	7	201	2 00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	11	201	2 00400 - pH	6.5-8.5	5.9	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	3	201	1 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7S	11	201	1 00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8D	3	201	3 00400 - pH	6.5-8.5	6.2	su
NC0004774		MW-8D	7	201	1 00400 - pH	6.5-8.5	6.3	su
NC0004774		MW-8D	11	201	1 00400 - pH	6.5-8.5	6.3	su
NC0004774		MW-8D	11	201	2 00400 - pH	6.5-8.5	6.3	su
NC0004774		MW-8D	3	_	1 00400 - pH	6.5-8.5	6.4	su
NC0004774		MW-8D	7	-	2 00400 - pH	6.5-8.5	6.4	su

Page 2 of 6 Buck 7/16/2013

Permit	Facility	Well	Month	Year	Parameter	2L Standar	Value	Units
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	2013	00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	2011	00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	7	2011	00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	11	2011	00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	7	2012	00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	2012	00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	11	2012	00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9D	7	2012	00400 - pH	6.5-8.5	5.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9D	3	2013	00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9D	7	2011	00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9D	11	2012	00400 - pH	6.5-8.5	6.2	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	7	2012	00400 - pH	6.5-8.5	5.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	3	2013	00400 - pH	6.5-8.5	6	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	11	2012	00400 - pH	6.5-8.5	6.1	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	7	2011	00400 - pH	6.5-8.5	6.3	su
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	2011	00945 - Sulfate, Total (as SO4)	250	320	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2012	2 00945 - Sulfate, Total (as SO4)	250	330	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2011	00945 - Sulfate, Total (as SO4)	250	340	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	2012	2 00945 - Sulfate, Total (as SO4)	250	340	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	2012	2 00945 - Sulfate, Total (as SO4)	250	340	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	2011	L 00945 - Sulfate, Total (as SO4)	250	350	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2013	3 00945 - Sulfate, Total (as SO4)	250	350	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2013	3 01022 - Boron, Total (as B)	700	1130	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2012	2 01022 - Boron, Total (as B)	700	1160	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	201:	l 01022 - Boron, Total (as B)	700	1190	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	201	2 01022 - Boron, Total (as B)	700	1220	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	7	201	2 01022 - Boron, Total (as B)	700	1240	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	201	1 01022 - Boron, Total (as B)	700	1260	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	7	201	1 01022 - Boron, Total (as B)	700	1290	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	201	1 01034 - Chromium, Total (as Cr)	10	11	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	7	201	1 01034 - Chromium, Total (as Cr)	10	13	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	11	201	1 01034 - Chromium, Total (as Cr)	10	28	ug/I
NC0004774		MW-10D	3	201	1 01045 - Iron, Total (as Fe)	300		ug/I

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Permit	Facility	Well	Month	Year	Parameter	2L Standar	Value	Units
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2011	01045 - Iron, Total (as Fe)	300	318	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	7	2011	01045 - Iron, Total (as Fe)	300	806	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	2011	01045 - Iron, Total (as Fe)	300	968	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	7	2012	01045 - Iron, Total (as Fe)	300	1260	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	2012	01045 - Iron, Total (as Fe)	300	1610	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2012	01045 - Iron, Total (as Fe)	300	1720	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2013	01045 - Iron, Total (as Fe)	300	3230	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	7	2012	01045 - Iron, Total (as Fe)	300	570	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	2011	01045 - Iron, Total (as Fe)	300	870	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	3	2012	01045 - Iron, Total (as Fe)	300	530	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	7	2011	01045 - Iron, Total (as Fe)	300	871	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	11	2011	01045 - Iron, Total (as Fe)	300	994	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12D	3	2011	01045 - Iron, Total (as Fe)	300	1070	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	2011	01045 - Iron, Total (as Fe)	300	478	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	2011	01045 - Iron, Total (as Fe)	300	323	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	11	2012	01045 - Iron, Total (as Fe)	300	334	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	3	2012	2 01045 - Iron, Total (as Fe)	300	413	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	7	201:	l 01045 - Iron, Total (as Fe)	300	453	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8D	3	201	l 01045 - Iron, Total (as Fe)	300	353	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	201	1 01045 - Iron, Total (as Fe)	300	559	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	201	3 01045 - Iron, Total (as Fe)	300	849	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	7	201	1 01045 - Iron, Total (as Fe)	300	1360	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	201	2 01045 - Iron, Total (as Fe)	300	2000	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9D	3	201	1 01045 - Iron, Total (as Fe)	300	370	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	7	201	1 01045 - Iron, Total (as Fe)	300	366	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	3	201	1 01045 - Iron, Total (as Fe)	300	584	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	201	3 01055 - Manganese, Total (as Mn)	50	310	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	201	2 01055 - Manganese, Total (as Mn)	50	392	2 ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	201	2 01055 - Manganese, Total (as Mn)	50	539	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	201	2 01055 - Manganese, Total (as Mn)	50	634	l ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	201	1 01055 - Manganese, Total (as Mn)	50	734	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	201	1 01055 - Manganese, Total (as Mn)	50	944	4 ug/l
NC0004774		MW-100	3	201	1 01055 - Manganese, Total (as Mn)	50	1130	ug/l

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Permit	Facility	Well	Month	Year	Parameter	2L Standar	Value U	Jnits
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	2011	01055 - Manganese, Total (as Mn)	50	56 u	ıg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	11	2012	01055 - Manganese, Total (as Mn)	50	56 u	ıg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2012	01055 - Manganese, Total (as Mn)	50	69 u	ıg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11D	3	2013	01055 - Manganese, Total (as Mn)	50	122 (I/gu
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	2013	01055 - Manganese, Total (as Mn)	50	106 t	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	11	2011	01055 - Manganese, Total (as Mn)	50	120 t	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	11	2012	01055 - Manganese, Total (as Mn)	50	126	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	2012	01055 - Manganese, Total (as Mn)	50	136	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	7	2012	01055 - Manganese, Total (as Mn)	50	151	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	7	2011	01055 - Manganese, Total (as Mn)	50	153	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-11S	3	2011	01055 - Manganese, Total (as Mn)	50	242	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	2013	01055 - Manganese, Total (as Mn)	50	52	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	2012	01055 - Manganese, Total (as Mn)	50	122	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	7	2012	01055 - Manganese, Total (as Mn)	50	137	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	11	2012	01055 - Manganese, Total (as Mn)	50	140	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	7	2011	01055 - Manganese, Total (as Mn)	50	239	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	11	2011	01055 - Manganese, Total (as Mn)	50	316	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-12S	3	2013	01055 - Manganese, Total (as Mn)	50	444	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	11	2013	l 01055 - Manganese, Total (as Mn)	50	59	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	11	201	01055 - Manganese, Total (as Mn)	50	60	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	201	3 01055 - Manganese, Total (as Mn)	50	72	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	201	2 01055 - Manganese, Total (as Mn)	50	80	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	7	201	1 01055 - Manganese, Total (as Mn)	50	97	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	3	201	1 01055 - Manganese, Total (as Mn)	50	100	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-6S	7	201	2 01055 - Manganese, Total (as Mn)	50	114	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	3	201	2 01055 - Manganese, Total (as Mn)	50	87	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	3	201	1 01055 - Manganese, Total (as Mn)	50	98	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-7D	7	201	1 01055 - Manganese, Total (as Mn)	50	129	ug/l
NC0004774		MW-7S	11	201	1 01055 - Manganese, Total (as Mn)	50	57	ug/I
NC0004774		MW-7S	3	201	1 01055 - Manganese, Total (as Mn)	50	70	ug/I
NC0004774		MW-7S	11	201	2 01055 - Manganese, Total (as Mn)	50	71	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	201	3 01055 - Manganese, Total (as Mn)	50	62	ug/I
NC0004774		MW-8S	7	201	1 01055 - Manganese, Total (as Mn)	50	81	ug/I

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Permit	Facility	Well	Month	Year	Parameter	2L Standar	Value	Units
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	7	2012	01055 - Manganese, Total (as Mn)	50	116	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	2012	01055 - Manganese, Total (as Mn)	50	246	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-8S	3	2011	01055 - Manganese, Total (as Mn)	50	360	ug/I
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	11	2011	01055 - Manganese, Total (as Mn)	50	55	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	3	2011	01055 - Manganese, Total (as Mn)	50	63	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-9S	7	2011	01055 - Manganese, Total (as Mn)	50	88	ug/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2012	70300 - Solids, Total Dissolved- 180 Deg.C	500	561	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2011	70300 - Solids, Total Dissolved- 180 Deg.C	500	570	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	2012	70300 - Solids, Total Dissolved- 180 Deg.C	500	580	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	11	2011	70300 - Solids, Total Dissolved- 180 Deg.C	500	600	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	7	2012	70300 - Solids, Total Dissolved- 180 Deg.C	500	604	mg/l
NC0004774	Duke Energy Carolinas LLC - Buck Steam Station	MW-10D	3	2013	70300 - Solids, Total Dissolved- 180 Deg.C	500	630	mg/l

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature X
CT Corporation System Registered Agent for Duke Energy Carolinas, LLC 150 Fayetteville St., Box 1011 Raleigh, NC 27602-1011	3. Service Type Scertified Mail® □ Priority Mail Express™ □ Registered ■ Return Receipt for Morehandice
[]	☐ Insured Mail ☐ Collect on Delivery 4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number (Transfer from service label) 7012 221	0 0001 0211 4134
PS Form 3811, July 2013 Domestic Ret	turn Receipt

34	(Domestic Mail O) MAIL™ RECEIPT nly; No Insurance Coverage Provided)
구	For delivery informa	tion visit our website at www.usps.com⊚
7	OFF	ICIAL/USE
	Postage	· 287
	Certified Fee	3.30 Postmark
	Return Receipt Fee (Endorsement Required)	2.70 Here
	Restricted Delivery Fee (Endorsement Required)	
김기기	Total Postage & Fees	\$ 8.87
ru	Sent To CT CO.CO	System, Reg. Agent For Duke ting
707	Street, Apt. No.; or PO Box No.	Fayetterille Box (01)
	City, State, ZIP+4 Rol	eigh NC 27602-1011
	PS Form 3800, August 2	2006 See Reverse for Instructions



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse 	A. Signature CHAPMAN ent Addressee
so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.	B. Received by (Printed Name) C. Date of Delivery
Article Addressed to:	D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No
Ms. Lynn J. Good President and Chief Executive Officer	JUL 0 9 2014
Duke Energy Carolinas, LLC 550 South Tryon Street Charlotte NC 28202	3. Service Type Certified Mail® ☐ Registered ☐ Insured Mail ☐ Collect on Delivery
HILLIAN CONTRACTOR OF THE PROPERTY OF THE PROP	4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number 7012 2210 (Transfer from service label)	0001 0211 4127
PS Form 3811, July 2013 Domestic Ret	urn Receipt

(Domestic Mail (D MAILTM RECEIPT Only; No Insurance Coverage Provided)
	nation visit our website at www.usps.coms
Postage	\$
Certified Fee	Postmark
Return Receipt Fee	Here
Restricted Delivery Fee	
Total Postage & Feet	\$ 8.45
Sireet, Apt. No.; or PO Box No. City, State, ZIP+4 PS Form 3800, Augus	poper, Attorney Gen. 1001 Mail Service Center 1016191 NO 27699-9001 2006 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature X B. Received by (Printed Name) C. Date of Deliver
Article Addressed to: Roy Cooper, Attorney General	D. Is collected the property of the property o
N.C. Department of Justice 9001 Mail Service Center Raleigh, NC 27699-9001	3. Service Type ☐ Certified Mail® ☐ Priority Mail Express™ ☐ Registered ☐ Return Receipt for Morehandied ☐ Collect on Delivery
2. Article Number	4. Restricted Delivery? (Extra Fee) ☐ Yes
(Transfer from service label) 7012 2211 PS Form 3811, July 2013 Domestic Re	J 0001 0211 4172 eturn Receipt

日 日	omestic Mail O) MAIL™ RECEIPT nly; No Insurance Coverage Provided)
1	or delivery informa	ation visit our website at www.usps.com
	Postage	\$ 2.87
	Certified Fee	3.50 / Postmark
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Re (End	stricted Delivery Fee lorsement Required)	
	otal Postage & Fees	\$ 8.87
ru Sen	Tohn E. Sku	arla, Seretury, NODENR
Street or F	PO Box No. (6)	11 Mail Service Center
	Form 3800, August	Qh NC 27699-1601 2006 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature X Agent Addressee B. Received by (Finited Name) C. Date of Delivery
Article Addressed to:	D'is delivery address différent from item 1? Yes OES, entergellery address below: No
John E. Skvarla, III, Secretary N.C. Department of Environment and Natural Resources	AL MIL CALIFIC
1601 Mail Service Center Raleigh, NC 27699-1601	3. Service Tolking Mail® ☐ Priority Mail Express™ ☐ Registered ☐ Insured Mail ☐ Collect on Delivery
	4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number (Transfer from service label) 7012 2211	0 0001 0211 4110
PS Form 3811, July 2013 Domestic Ret	urn Receipt

L 4203	For delivery information visit our website at www.usps.com			
2210 0001 0211	Postage Certified Fee Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees	\$ 3.87 3.30 3.70 Postmark Here		
707	Sent TO HON. REDINA McCarthy Administrator Street, Apt. No.; or PO BOX NO. 1200 Remysylvania Ave Mail Code 1101A City, State, 2174 Washington Dc 20460 PS Form 3800, August 2006 See Reverse for Instructions			

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature X
1. Article Addressed to: The Honorable Regina McCarthy, Admin. U.S. Environmental Protection Agency	If YES, enter delivery address below: No
Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Mail Code: 1101A Washington, DC 20460	3. Service Type Certified Mail® ☐ Priority Mail Express™ ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ Collect on Delivery 4. Restricted Delivery? (Extra Fee) ☐ Yes
2. Article Number 7012 2210 (Transfer from service label)	0001 0511 4703
PS Form 3811, July 2013 Domestic Retu	ırn Receipt

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Postage \$ 2.45

Postmark
Here

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees \$ 3.45

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Sizeet, Apt. No.:
or PO Box No. (1 For Syth St. Mail Cade 9725)
City, State, ZIP+4 Atlanta, GA 30303-89160

PS Form 3800, August 2006

See Reverse for Instructions

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Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: Heather McTeer Toney, Reg. Administrator USEPA REGION 4 61 Forsyth Street, S.W. Mail Code: 9T25	A. Signature X
Mail Code: 9125 Atlanta, GA 30303-8960	Certified Mail® ☐ Priority Mail Express™☐ Registered ☐ Return Receipt for Mandal ☐ Collect on Delivery
	4. Restricted Delivery? (Extra Fee) ☐ Yes
Article Number (Transfer from service label) 7012 26	210 0001 0211 4141
PS Form 3811, July 2013 Domestic R	eturn Receipt